

# FLIGHT

First Aero Weekly in the World.

Founder and Editor: STANLEY SPOONER.

A Journal devoted to the Interests, Practice, and Progress of Aerial Locomotion and Transport.

OFFICIAL ORGAN OF THE ROYAL AERO CLUB OF THE UNITED KINGDOM.

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## Flight.

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## EDITORIAL COMMENT.

### Doing it on the Cheap.

Col. Seely's suggestion to the Lord Mayor of Liverpool, contained in a letter of apology for absence from a recent meeting, amounts to nothing short of begging on behalf of the Government. He suggests in unmistakable language that if Liverpool wants to spend any considerable sum of money on the encouragement of aeronautics in this country, that the presentation of a complete squadron to the Royal Flying Corps at a cost of about £40,000 would be regarded as very acceptable by His Majesty's Ministers.

We daresay it would; but why should Liverpool be expected to put its hand in its pocket to supplement the niggardly vote of the Government? Of all the things that have happened yet, this request by the Minister of War for the private financing of his parliamentary programme throws the most intense side-light on to the true inwardness of the present situation. In fine, it completely lets the cat out of the bag.

If Liverpool were to comply with the War Minister's request, Liverpool would have to buy in the same market as the Government, and if Liverpool's generosity were to be of immediate service to the nation, the market in

which Liverpool would have to buy must at the present moment possess a capacity for output greater than the demand made upon it at present by the Government. In short, the Government could complete the establishment of its own Royal Flying Corps more quickly than it is doing if it chooses to spend the money at once.

Col. Seely has persistently stood by his original programme, which is to establish the Military Wing of the Royal Flying Corps on a scale suited to the requirements of an expeditionary force. We are not in the least satisfied that such an establishment is adequate to the military needs of this country, but we do thoroughly support Col. Seely and General Henderson and Major Sykes when they argue, as they have done, that the right policy of progress is to get the present programme completed before starting on another.

What we grumble at, and what we contend the nation has a right to grumble at, is the parsimonious vote provided by the Chancellor of the Exchequer for capital expenditure to be devoted to the immediate equipment of the Military Wing of the Royal Flying Corps with its transport, barracks, and other requirements that constitute a large fraction of the initial establishment charges.

We presume that Col. Seely is not prepared to expand his present programme merely because someone offers him the price of an additional squadron. We may argue, therefore, that the squadron that Col. Seely is so willing to accept at Liverpool's expense is one of those already earmarked for creation in the Government's programme. To cut a long story short, Col. Seely cannot get his colleagues in the Ministry to finance the work that he has planned and to which they, in common with himself, are committed.

Col. Seely comes in for a good deal of abuse, but everyone knows quite well that Ministers are often made to appear ridiculous through having the ground cut away from beneath their feet by others who lie snugly out of sight in the ditch so made. Loyalty to their colleagues prevents them from exposing the real mole and it is only from some unguarded remark that is sure to slip out sooner or later that one ultimately learns whereabouts to place the blame.

We have suspected for a long time that Mr. George and his satellites at the Treasury have been the real obstacles to progress. There is not much doubt about it in the light of Col. Seely's present action in respect to Liverpool, and we hope that Liverpool will not be so foolish as to play into the hands of Mr. George by

giving him £40,000 with which he can finance some more of his own pet schemes.

That, after all, is what it would amount to, and it is because gifts of this character do resolve themselves in this way that we are not enthusiastic for the public to subscribe money for the purchase of war aeroplanes and the like, which it is the obvious duty of the Government to purchase for itself.

We have heard it hinted that David Lloyd George is pleased to regard the present public enthusiasm for improved aeronautical defence as largely a species of scaremongery. We are not so much concerned with the private views of the Chancellor of the Exchequer as with his actions, and what we object to, and what we hope some Member of Parliament will find time to ask questions about, is why, in the light of Col. Seely's request to Liverpool, the Chancellor of the Exchequer has not seen fit to provide the extra money that the War Minister evidently requires.

We suggest that someone might question Col. Seely in Parliament as to whether he asked the Chancellor of the Exchequer in the first instance for the £40,000 that he is so anxious to raise in Liverpool; whether he would be willing to accept similar sums from other communities for the same purpose; and whether, in short, the Chancellor of the Exchequer has not withheld about half a million pounds sterling from the amount that Col. Seely would have liked to have been able to provide in his Army Estimates for the express purpose of bringing the Military Wing of the Royal Flying Corps more immediately to its proper establishment.

And now let us return to the subject of Liverpool and its enthusiasm, and let us say without any more delay that we wholeheartedly approve of the public spirit that causes Liverpool to desire to help forward a new movement of national importance. Nothing could be finer than the willingness on the part of the great commercial centre to put its hand into its pocket for a patriotic cause.

The only point on which we join issue is one of detail in the matter of expenditure. Let us suppose that Liverpool has already subscribed £40,000, which it desires to expend in such a manner as shall assist this country to be supreme in the air. The first point to be recognised is that money carries influence as well as purchasing power; the purchasing power passes, but much of the influence remains.

It is important therefore that money collected by public subscription should not be spent on superficially worthy objects that engender a bad influence when they are more closely investigated. The worst of all possible objects possessed of a speciously worthy exterior is that associated with the local purchase of national armaments. If the armament is really required by the country, its prospective provision for the nation ought already to be found in the Government programme. If it is not found in the Government programme, it would be a far better use of the money to spend the whole of it in forcing the Government to a proper attitude of mind than in doing the Government's work for them in such a way as tends not only to relieve them of blame, but actually to reflect the halo of virtue instead of the shadow of disgrace upon Ministerial heads.

Alternately, if the armament is already provided for in the Government programme, as it is in this case, it is the duty of the Chancellor of the Exchequer to provide

funds adequate to enable it to be acquired without delay. We trust and hope, therefore, that Liverpool will not do for Mr. George what Mr. George is too mean-spirited to do for the nation.

The next point that needs to be considered, in this question of the influence of money, is to ensure that the result of such expenditure shall, as far as possible, re-engender the enthusiasm that originally produced the means. In short, if Liverpool people subscribe largely to a fund, it should in the main, be so spent as to provide a more or less permanent inspiration for other Liverpoolians to go on doing likewise.

There are a great number of things altogether outside the province of the Government that might usefully be done with public money, which would equally further the interests of Great Britain in the air. It must be remembered that aeroplanes do not grow on bushes in a state of ready-made perfection, and while it is the duty of the Government to buy the best machines that it can obtain for the aerial defence of this country, it is not very directly concerned with the general encouragement of the brain power by which they are produced. The interests of the Government in this matter are collective rather than individual, and we suggest that Liverpool should spend its money in such a way as to provide Liverpool people with a permanent and personal interest in aeronautics. We do not pretend here to suggest what might be an appropriate object for this purpose, but we do venture to put in a plea for the co-ordination of effort.

There has just been created as a consequence of the Mansion House Meeting organised by the Navy League a National Aeronautical Defence Association, which is for the very purpose of facilitating co-operative public work. We do not for one moment suggest that Liverpool should just hand over its money to some central body to be spent as that central body pleases. But we do suggest that it would be an act of courtesy and consideration on the part of any community with money to spend on the furtherance of British aeronautics, to seek the co-operation of the central committee in order that the resulting experience and influence may be as widespread as possible. The expenditure itself can be entirely local, but the influence of the action can, nevertheless, be extended far and wide if the work is undertaken in co-operation with a central organisation.

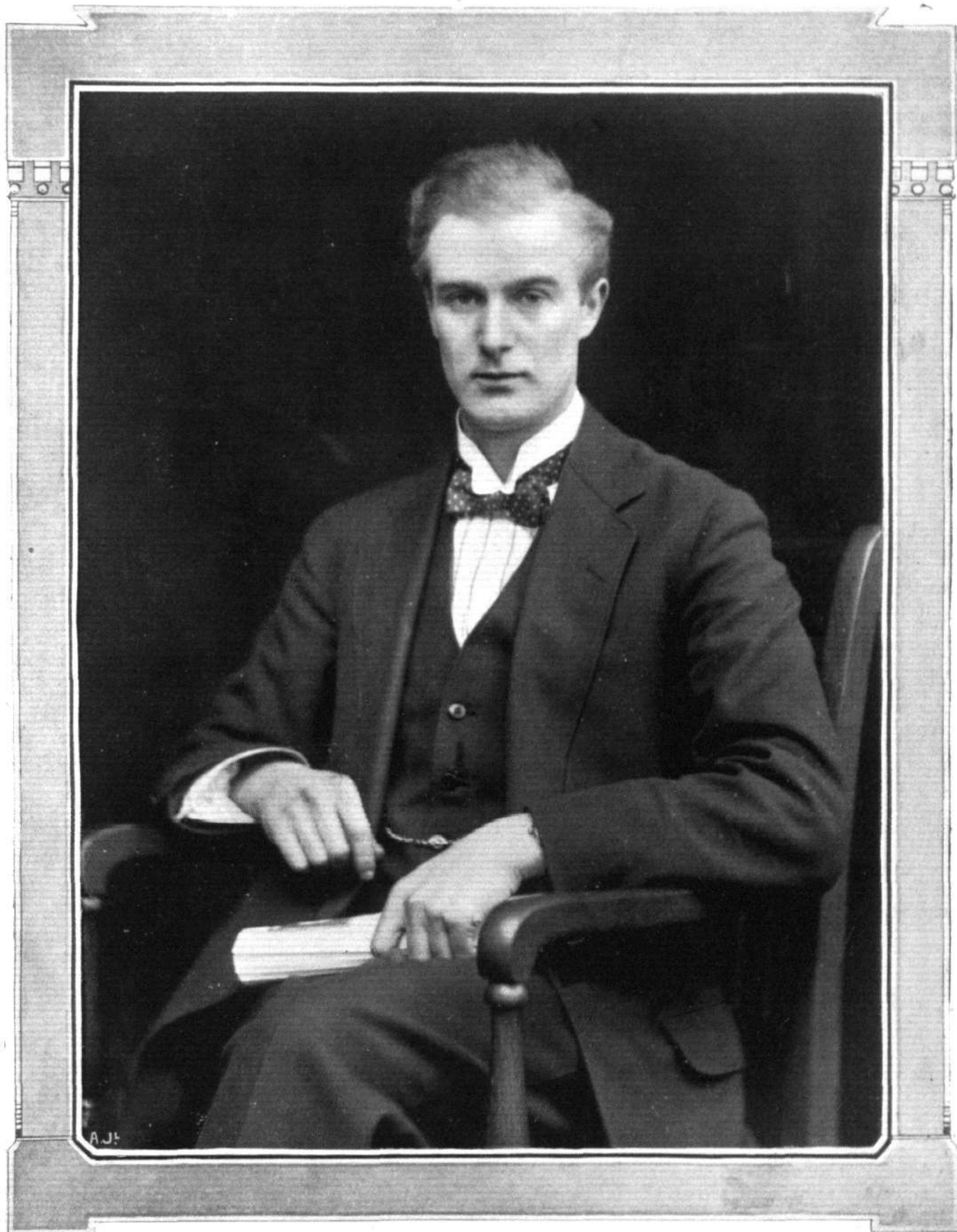
It is a *sine qua non* to the success of the National Aeronautical Defence Association that it should be received locally in this spirit, and it is essential to the standing of such a central committee that its administrative body, and particularly the body directly concerned with the expenditure of subscribed funds, over and above those incidental to its organisation, should itself be a joint committee of established interests, such as those represented by the Royal Aero Club and the Aeronautical Society. It is not within the scope of either of these latter bodies to make general appeals to public generosity, but both are, nevertheless, very directly concerned with the furtherance of aeronautics in England, and both are made up of the very men who constitute the greater part of the *personnel* on which this country's position in the air depends.

The public is tired of the everlasting appeals made on its pocket nowadays, and it behoves all who are interested in making the most of the present wave of enthusiasm for aeronautics to work harmoniously and in a broad-minded spirit of co-operation, so that those who are willing to give may have every possible assurance that the utmost value will be obtained for their money.

MAY 17, 1913.

FLIGHT

**MEN OF MOMENT IN THE WORLD OF FLIGHT.**  
**Designer-Constructor.**



MR. R. BLACKBURN.



# ARMCHAIR REFLECTIONS.

By THE DREAMER.

## The Humorous Scot.

WHEN, recently, I spoke of "inches" I said I had no doubt my ignorance as to what they were would soon be removed, and it is even so. In my fear I had this week at first thought of saying that I knew perfectly well what "inches" were all the time, but, on second thoughts, I can plainly see that this would only make matters more complicated. To take only one of the letters I have received, "Perthite" writes to tell me that an "inch" is a park, and a skating pond an open field, so, now it is explained, everybody should be happy. It only shows how careful the "canny Scot" is when dealing with these air-fellows. Give them an inch, and they'll take a park.

I believe the Irish mile has got something to answer for in the shape of measurements, but, when it comes to real business, Scotland has it every time. Evidently the metric system is not likely to invade these shores at present. England, it seems to me, has got something to explain also. As a boy at school I used to be worried over "rod, pole, or perch," with a few "chains" thrown in as makeweight, and could never understand why yards and miles were not good enough for lineal measurements, though I knew what an acre was:—

An acre is a little boy, who takes a pole to catch

A perch, and gets a rod instead—across his little patch!

I am not altogether certain—even after reading "Perthite's" letter again—whether inches only apply to parks, or if they would also be used in reference to a patch, but if an "inch" is a park and a patch is three by two, that little boy is very pleased he did not live in Scotland.

"It's the last time, Phenel, my boy." Those who were lucky enough to see poor Terry in "Sweet Lavender" will remember that Terry as "Phenel" was rather given to the cup that cheers, but could see the error of his ways, and was for ever taking his final drink. I do not know what it was he drank from the bottle, but like the operatic singer there were many farewells, each time excusing himself by saying it was the last time. It may have been "Scotch" or it may not, but in my case it is. Gentle reader, I intend never to touch "Scotch" again (in these columns). In a misguided moment I ventured to state that I was not quite sure whether a Scotsman could see a joke or not. I know now. I hope that having explained that an inch is a park, that this is the end of it, but in order to appease the few Scotsmen that have not written to me, I hasten to add that although they call an open field a skating pond, it is only a pond in winter time, and, to still further please them, I don't mind admitting that we have the same sort of places, only we call them aerodromes.

## Overheard on the 'Phone (receiving end).

Helloa—Helloa—Yes, I'm Brown—Oh, is that you, Harry—Good morning—Yes, I thought of going out there this afternoon—Oh, start about two—Oh yes, there's sure to be some flying—Yes, I know, but there's Verrier and Turner and several others, you know—Yes, so do I, but they can't help it, you know—So they would if they'd got anything to fly—Yes, my dear chap, I know, but how can they if they haven't got a machine?—So they had, but they've sold them all—Oh yes, no doubt they will, but they haven't got any at present—Oh he's a smart business man, and doesn't want any advice

from me. No doubt he will get some soon—Oh, they just hang about and watch the others—Yes they are, I think, they don't look at all pleased, anyhow—Well, they advertise competitions in the hope that they will be able to get up something between the others—Pay your money? Yes, I know—Yes, so did I, and I thought this year would be even better, but there hasn't been much yet—Do you? Oh, I don't. I never get tired of seeing him fly, though, as you say, I certainly should like to see some racing—What did they do it for? Well, they had to. Wouldn't you sell if you had the chance?—Yes, I know people are beginning to talk, and I am afraid they will do themselves a lot of harm if they don't soon get some and get back into the old style again—Hucks? Oh yes, he's doing quite a lot, I believe—Yes, he gives exhibition flights, you know—Oh yes, I have no doubt he would if they paid him—Yes, so should I. I used to enjoy seeing him on the old number sixteen—Yes, they were good times, weren't they? Well perhaps they will come again—Yes, that's right, old chap, do, come and have some lunch with me and we'll go out together, we're sure to see some good flying anyway, and I'm going to stick to them for a bit—Good-bye, old chap—What?—Yes, one-thirty sharp—Good-bye.

## To be or not to be.

When I persuaded a kind editor some few weeks ago to let me have this page in which to write irresponsible nothings, I set out to try and be somewhat humorous, or, at any rate, to treat things lightly, but it has gradually been dawning upon me that I have been at times rather serious, and I am not quite sure in my own mind whether I am doing the right thing or not.

I suppose after all, however, a man is but a creature of moods, and must write as he feels, and sometimes when I am not in a merry mood I feel as though I want to be a father to you all and deal out wisdom in big spoonfuls like brimstone and treacle, knowing that it will do you good though you don't like the taste. After all, you know, the world is made up of sorrow and sunshine, and without the sorrow sometimes we should not appreciate the sunshine. I write this, however, to please you, and if I am giving you too much brimstone and not enough treacle, just write and let me know, and I will promise to reduce the dose in future.

Speaking of writing, I have had one or two letters lately from readers of FLIGHT asking me to write to them and disclose my identity, but you don't catch me napping like that; oh no. I am not at all sure on which side of the hedge I happen to be, and although it is just possible that they only want to shake me by the hand, it is also quite probable that they have something entirely different in store for me, and as I have no particular wish to die young, even though I know I am good, I prefer, at the present at any rate, to travel *incog*. I believe, from what I have heard, that the advertisements in the "agony column" are not always what they appear to be, and that when "Harry" turns up thinking that "all will be forgiven" or that he "will hear of something to his advantage" he sometimes finds himself in a very warm quarter. I am a "dreamer," I know, but I can dream quite well, thank you, without being put to sleep from the boxer's point of view; so, if you have got anything to say, please write to me, care of the editor. I shall be just as pleased, and it will be far more safe.

**"Programme and Guide, Sixpence."**

Every year when I take my little holiday by the sea, I buy a guide. I don't know why in the world I do so, as I know most of the places I visit quite well, having been there before, but as buying a guide seems to be part of the business of holiday-making, I always encourage local (printed in Germany) interests by laying out the humble sixpence. After all, it is something to take home, and helps to convince your friends that you really have been there, and not been spending a holiday at home trying to get sunburnt in the back garden. As a matter of fact, this seems to be the only good a guide is at all, as it nearly always fails to tell one anything really interesting about the place, except such things of interest of which it is not quite sure, or, to put it quite plainly, things of interest which they are quite sure are wrong, when they always take refuge behind "supposed." "The large upright rock on the right is known as Cromwell's Rock, and is supposed to be where Oliver Cromwell used to watch for the approach of Nell Gwyn," is about the usual style. However, as these guides seem to command a ready sale, and as nobody seems to want to take them seriously, I don't see why some of our aerodromes should not issue a guide also. In case Hendon, ever to the fore, should wish to be the first, and as it does not call for any literary effort, I offer the following, including copyright, free.

The best way to get to Hendon is to take a taxi; if, however, you cannot drive, it is better to hire one. Starting from the Marble Arch—supposed to have been erected to mark the spot once known as Tyburn, the exact position of which being doubtful, it is proposed to keep moving the Arch about till it is found—our way lies along the Edgware Road—supposed to be so called from the amount of S. F. Edge ware that passes along it—through Maida Vale—so named, it is supposed, from the supposed making of the veils of Mary, Queen of Scots, by the maidens of the Convent of St. John's in the Wood—through the Hyde—supposed to be the place where King Alfred the Great hid up a factory chimney, now used by the local gasworks—to Colindale Avenue, on the right-hand side.

It is supposed that at one time this celebrated avenue had trees, and was on the left-hand side of the road, but during a very wet season it got washed over to the other side, and has not settled down yet.

There is a speed limit here for motor vehicles, but it is not arbitrary. It depends on the constructional strength of the car; it is not wise, however, to exceed 5 m.p.h. At the end of the avenue stands the famous aerodrome, where in the season gather beauty and aviators. There are, of course, others there besides aviators, but you can easily tell visitors; they are the ones that wear leather suits strapped round the middle, and have goggles pushed well up on their caps. The aviators are quite ordinary men in ordinary clothes, and are quite harmless. If you are not quite sure whether a certain person is an aviator or a visitor, ask for his autograph. If he smiles a number nine smile you have got a bite. A new pier has lately been added at enormous expense, and when the tide is up comes in very handy. The celebrated "Blue Hendgarian Band" plays off the end of the pier daily. For pieces as souvenirs apply to the management. It is not necessary to buy a programme of the music; you will soon get to know it. Hints to visitors: Mixed bathing in the lake is prohibited. Only those wearing a red band are permitted to walk on the pier. The man on the bridge is provided with a megaphone so that he can make announcements just when a noisy machine is passing. If Hamel disappears in the clouds, don't be frightened; he will come back. Should a machine appear to be falling on you, don't run away; it is only Chevilliard looking for the aerodrome. Should you wish to know which is Hamel, ask him. The best way to get home from Hendon depends upon where you live, and whether you are going straight home.

**Annual Dinner of R.F.C.**

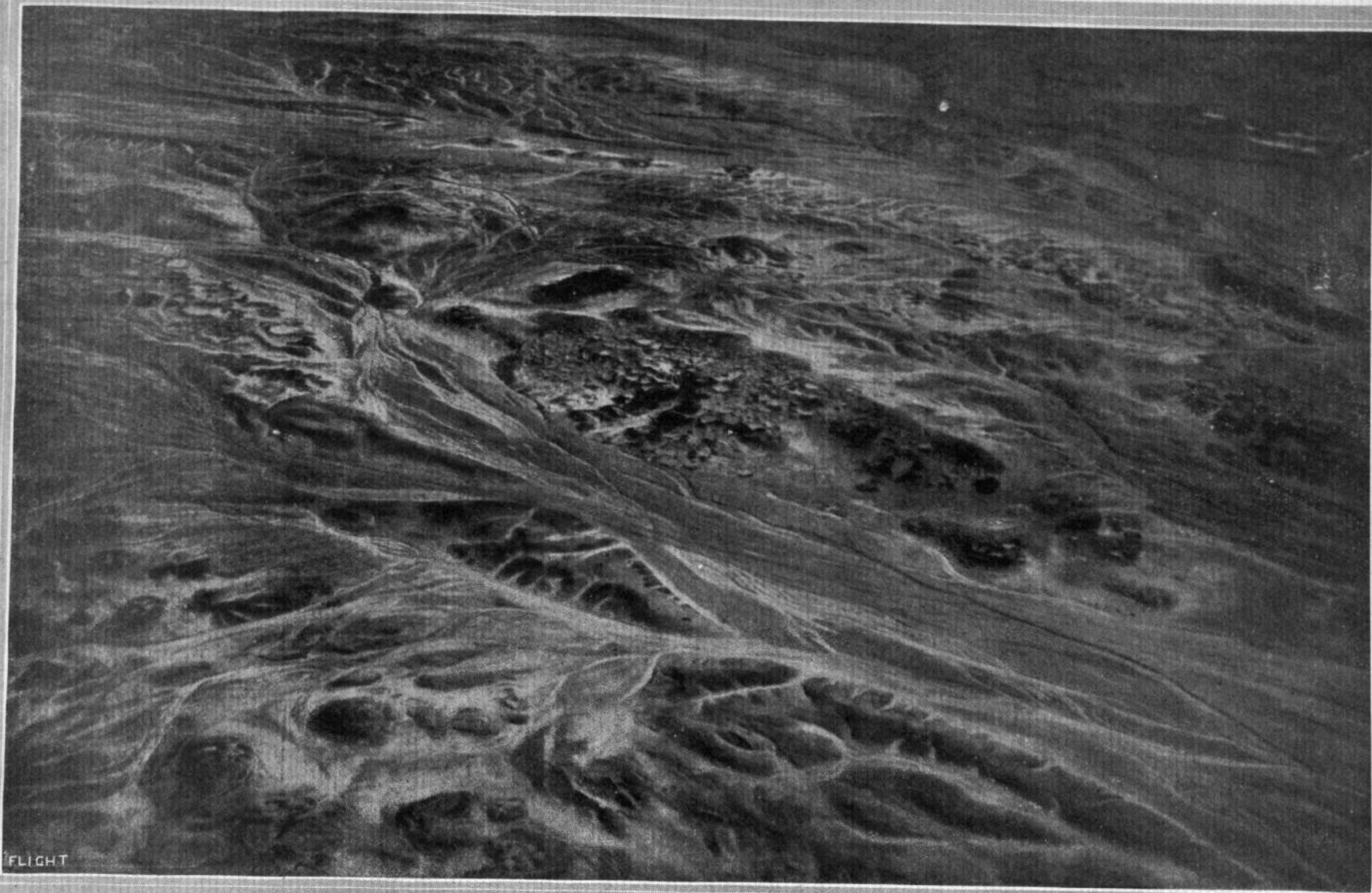
THE first annual dinner of the Royal Flying Corps will be held on Friday, June 6th, at the Café Royal, Regent Street, at 7.30 for 7.45 p.m. All officers of the Central Flying School, Naval and Military Wings and Reserves, are invited to attend.

Officers who propose dining are requested to notify the President, Officers' Mess, R.F.C. (M.W.), South Farnborough, not later than the 31st inst., forwarding a remittance of 25s., which will include wine and cigars.

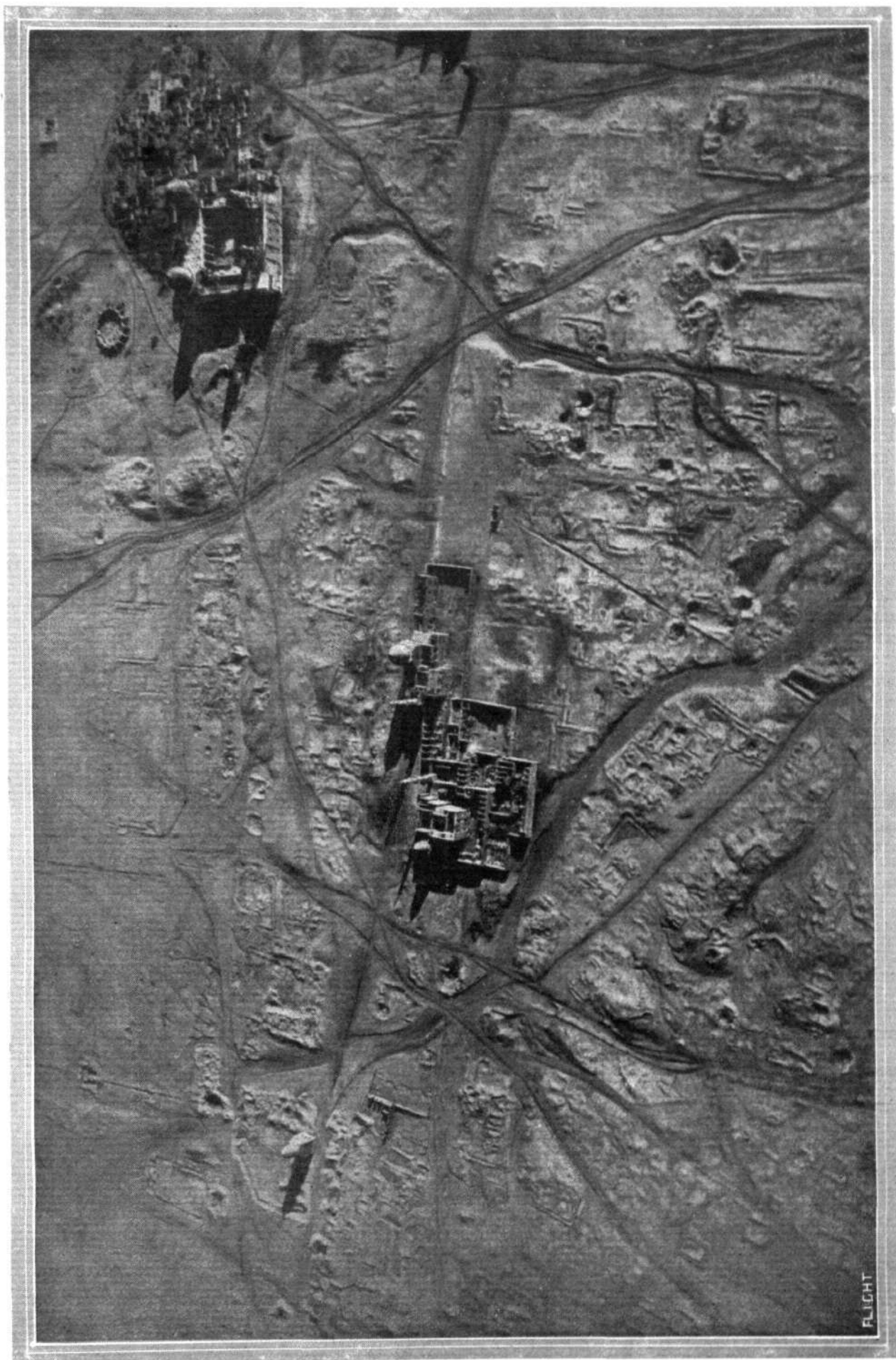


A stiff "landing" on the sea with a hydro-aeroplane at Monaco.





A view of the windswept Arabian Desert sea of sand, as seen from the "Stella" balloon.—German Motor.



ABOVE THE ARABIAN DESERT.—A view, taken from the balloon "Stella," of "El Achraf" Mosque and of the Graves of the Caliphs.—German Motor.



# THE BRISTOL MONOPLANE.

THE scale drawing and constructional sketches published this week represent the latest Bristol monoplane as exhibited at the Olympia Show. It is a development of the design by M. Coanda which was entered for the Military Trials, and differs principally from its prototype in respect to a larger wing area, which now spreads 280 sq. ft. The chord is 7 ft. 3 ins., and is notable for the extent of the trailing portion aft of the main spar. The weight of the machine, notwithstanding its larger area, is appreciably less than that of the machine entered in the Military Trials; in consequence, it has an increased flexibility of manœuvring power, is able to ascend more quickly in confined spaces, and in general to respond with greater certainty to the pilot's control when a delicate touch is needed during, say, the course of alighting. The fuselage of the machine is rectangular in section, and is built up of four ash booms with strut cross members of spruce. Diagonal steel wire bracing is employed in the usual way to make a rigid girder of the whole structure.

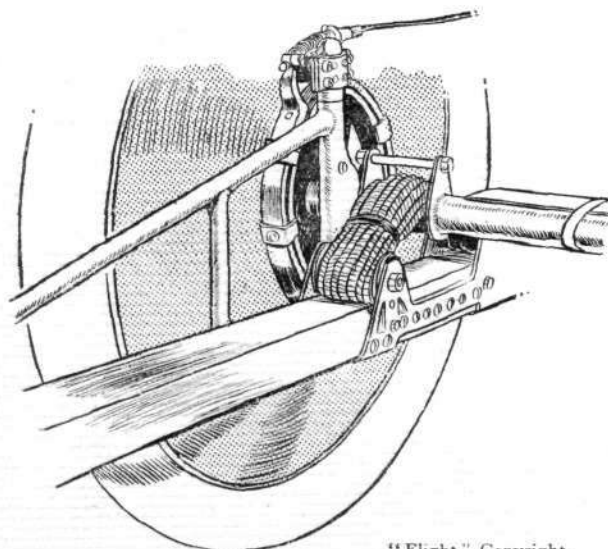
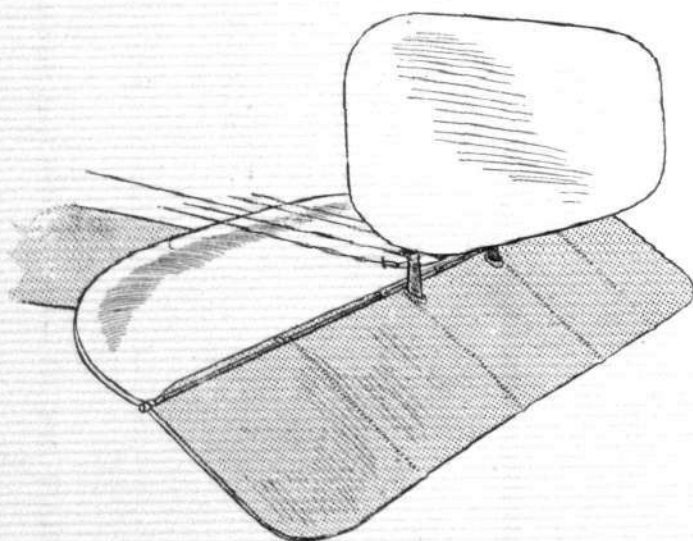
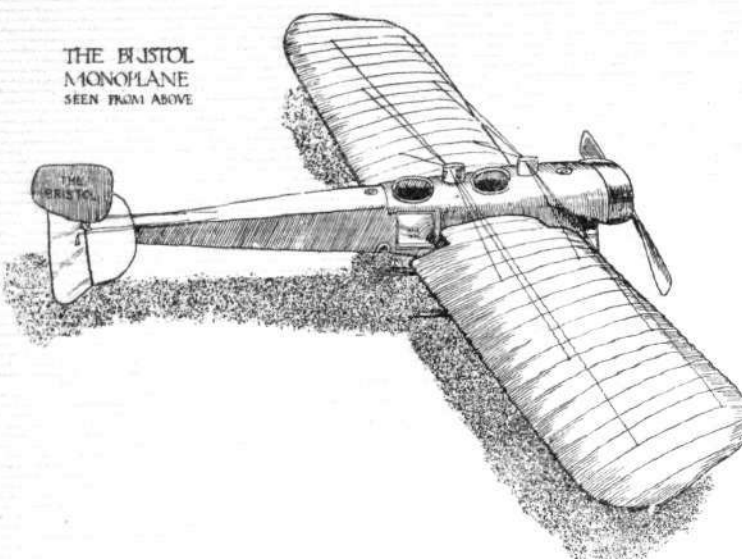
In order to prevent the compression stress on the wing spars being taken by the sides of the body of the machine, the spars themselves, which are of tubular steel, are carried through the body and abut against the

centre of gravity of the machine. His presence or absence does not, therefore, affect the balance. The pilot's seat is situated behind the second mast, and his outlook on either side of the body is facilitated by the cutting away of the wing surfaces. Both seats are of the bucket type, and are independently sprung upon bent malacca cane so as to ease the shock of a rough landing.

For the same reason they are upholstered round the edges with leather. A further range of vision is sought by fitting glass windows in the sides and bottom of the fuselage; the glass is of the kind that has wire netting embedded in it to prevent it from flying to pieces when broken. The front edges of the wings are also cut away slightly, it will be noticed, to facilitate the passenger's outlook toward the ground.

Speaking of balance, an interesting detail is the disposition of the fuel

and oil tanks relatively to the centre of gravity. The oil tank is placed at a distance behind the C.G., that is three times as great as the distance of the petrol tank forward of that point. The ratio of the consumption of fuel to oil is three to one in units of weight, so that the two tanks are in balance at the start and at all times during flight so long as this ratio of consumption is maintained.



"Flight" Copyright.

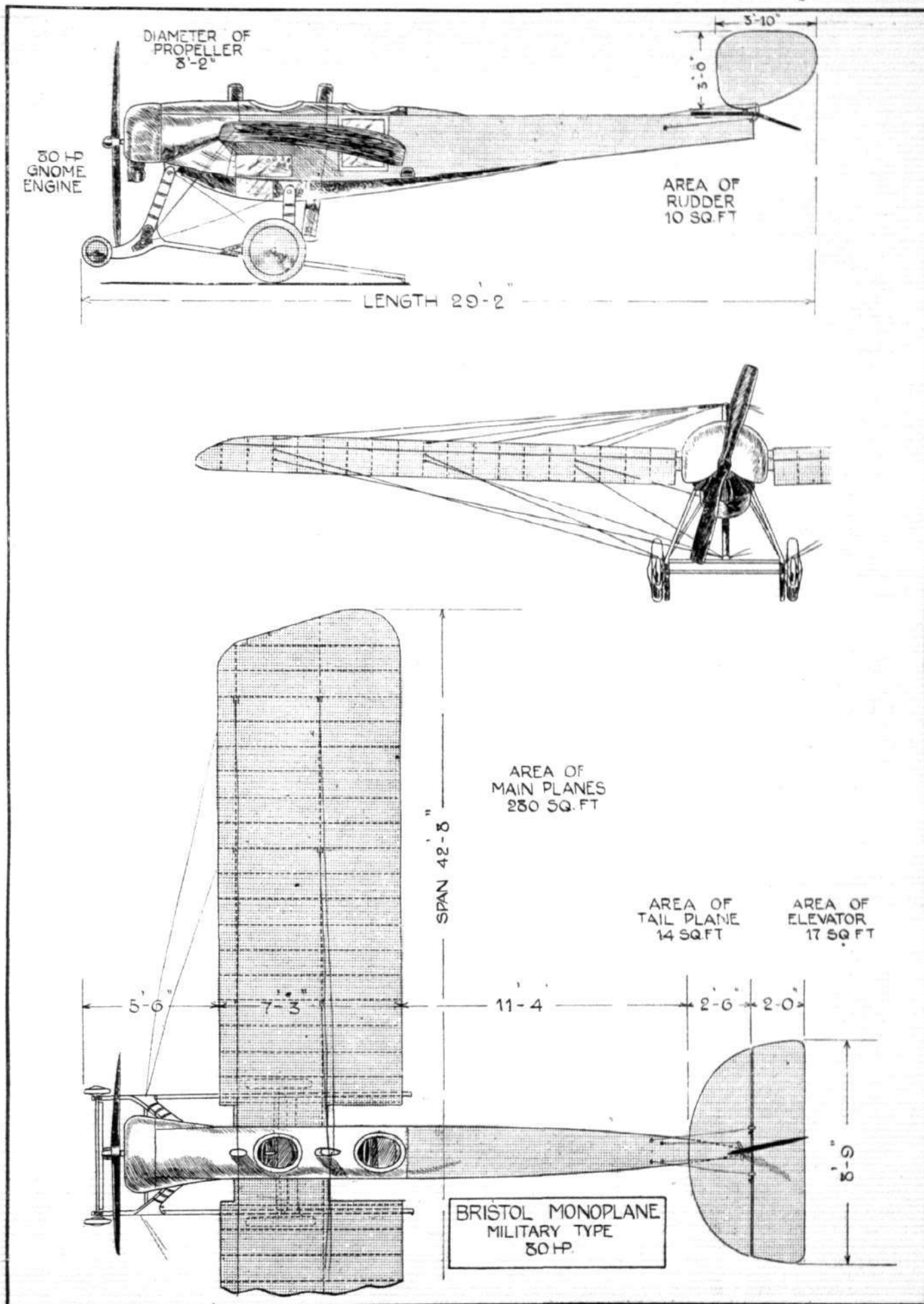
**BRISTOL MACHINE DETAILS.**—The tail on the left is a standardised unit, it being identical on both the monoplane and the biplane. The sketch on the right shows the flexible suspension of one of the main landing-wheels, with its band-brake and torque-rod.

masts that carry the guy wires from overhead. These masts are very neatly streamlined, and have somewhat the appearance of short funnels, which gives to the machine in flight an appearance that lends an appropriateness to its being described as a sort of torpedo boat of the air.

The passenger sits immediately behind the forward mast, and the passenger's seat corresponds with the

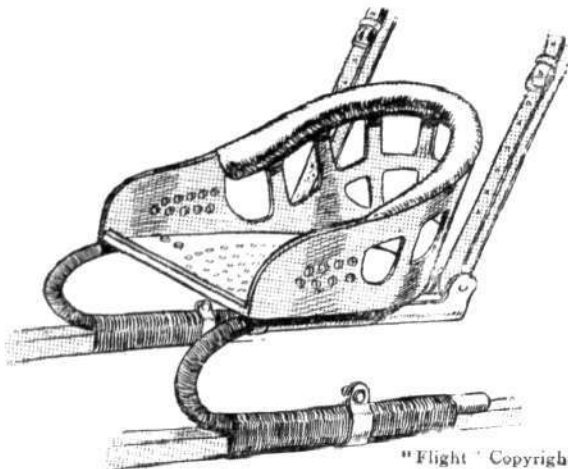
Dual control forms a standard fitting on this design, and incorporated therewith is an unlocking device by which the pilot can throw the passenger's control gear out of action at will; the control movements themselves are of the orthodox type. A to and fro motion of the lever operates the elevator, turning the hand wheel on top of the lever actuates the warp through cables, and the pivoted bar under the pilot's seat controls the rudder.





THE BRISTOL MONOPLANE.—Plan, side and front elevation to scale.

Particular attention has been paid to the range of the warp, and the wing tips of this machine are capable of moving up and down about 3 feet. On account of the



The original method of cane suspension of the seats of the Bristol machine.

wing structure, which avoids putting the wing spars in torsion when the wing is warped, the wing does not tend automatically to return to its neutral position. The wing spars are, as has been mentioned, steel tubes; they are cored with wood to give them greater resistance to indentation. The wooden ribs are a free fit on the spars, and kept in position along the span by the special construction of the leading and trailing edges to which they are fastened. The trailing edges of the wings consist of three-ply wood, which is very neatly arranged and gives a well-finished edge. The general staying of the wings is very much the same as at the time of the Military Trials, the upper wires being carried over the two masts and the lower wires of the forward spars being carried forwards to the undercarriage. The lower wires of the rear spar are of course carried to the warping gear on the lower extremity of the rear mast. The innermost of the lower forward stay wires is attached to a steel strap passing under the body.

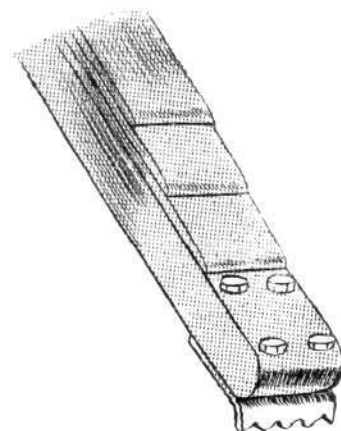
The two outer lower wires, which are attached to the forward spar and to the undercarriage, have a rake of about 45 degrees in side elevation, and their purpose is to take the drift as well as the lift. The angle is such that under all normal conditions the forward component of the lift due to the obliquity of the wires would exceed the direct drift force against the wing. The difference



## Whitsun Work at Liverpool.

On Whit-Sunday, Mr. Birch, who had an engagement to give an exhibition at Beeston Castle on Whit-Monday, decided to make an early start to get there. After circling round in front of the hangars he headed straight for New Brighton Tower, but found the wind at 1,500 ft. so strong against him that he had only left the Mersey by about 3 miles, and had been in the air 40 mins., so wheeled round and was back at Waterloo in less than 10 mins. Later on in the day the wind subsided, and Birch made another start, but hardly had he crossed the Mersey this time before his engine showed signs of flagging, and he took advantage of the Wirral Ladies' Golf Links to come down. A telephone message to Mr. Melly at Liverpool Aviation School brought the latter across the Mersey within the hour, but as no defect could be found, after running the engine several times, it was decided to make another attempt. The engine this time gave up the ghost even sooner than before, and Birch, thinking discretion the better part of valour, executed a lovely spiral *piqué* from about a hundred feet and landed in a gorse bunker with no further damage than a strained fuselage through three wires breaking. The machine was dismantled and housed in the motor garage of Mr. H. Bickersteth, who offered the most generous help, and hospitality. The machine, which is the same machine that

between the actual drift force at any moment and the resolved component of the lift is taken by the internal wing bracing, which is of an interesting and unusual character. Adjacent to the collars on the two spars to which the lift wires are attached, steel clips are fitted for the attachment of the internal wires. These clips embrace the tubes that are not rigidly fixed thereto. In turn, these clips are embraced by the master ribs of the wing structure. The arrangement of the clips is such that their proximity to the fixed collars on the wing spar gives them a point of abutment that otherwise would of course be lacking.



The laminated rear end of the Bristol monoplane skid.

The undercarriage design of the Bristol monoplane is a striking feature of its construction, principally on

account of the very interesting and very massive looking streamline main struts by which it is attached to the body. These struts, which measure some four inches fore and aft, are hollow, and at each end are semi-circular, so that they form a knuckle-joint with the piece against which they abut. The joint is completed by a plate and a pin through the centre from which the semi-circle is described. The joint is constructed as a rigid member, but its object is to facilitate a certain amount of give in the right place so as to avoid breakage in the event of very severe shock. The general design is also such as to facilitate the replacement of these struts.

Ordinarily, the weight of the machine is carried on two wheels, which are attached by their axle to the chassis skids by means of elastic straps. Two smaller guard wheels are carried on extensions of the chassis construction, and serve to take the shock of a *piqué* landing or of any obstruction. While rolling, this portion of the chassis projects forward of the propeller, and to that extent tends to preserve it from damage.

The tail unit of the machine consists of a segmental fixed member that is non-lifting and an undivided extension thereto, which forms an elevator flap. The rudder is mounted entirely above the tail, and is pivoted so as to be approximately in balance about its swivelling axis.



Birch flew round Liverpool and Birkenhead on 2nd inst., was packed up, and on Tuesday towed home by the School car.

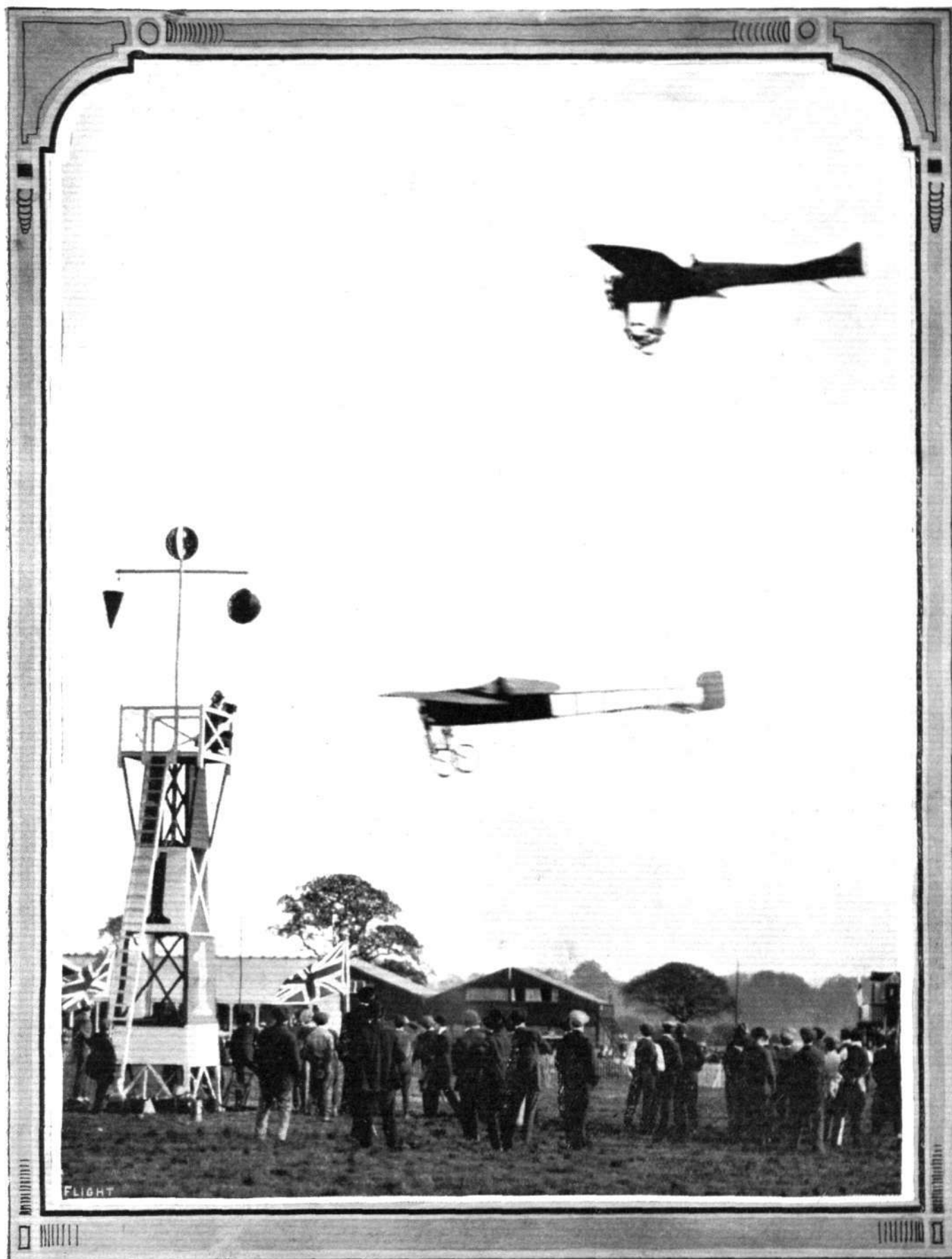
## Mr. J. L. Hall at Debenham.

SEVERAL exhibition flights were made by Mr. J. L. Hall on his 50-h.p. Radley-Moorhouse monoplane in connection with the fête and gala at Debenham, Suffolk, on Whit-Monday. A crowd of about 8,000 people came from the surrounding villages chiefly to see the flying, as it was the first time an aeroplane had visited the district. Several flights were also made in a gusty wind towards the evening. On the termination of the flights the crowd broke through the ropes and swarmed round the machine, whereupon Mr. Moore, the chairman of the Committee, thanked Mr. Hall for his splendid display of flying, and congratulated him on his graceful landings. After the cheering ceased, Mr. Hall suitably responded, and the machine was wheeled back by the Boy Scouts.

## Testing the Parsons Biplane.

SOME good flying was done at Brooklands last week with the Parsons biplane, designed and built by Mr. P. M. Muller for the purpose of testing the automatic stability device invented by Mr. J. G. Parsons. With Jack Alcock piloting, the machine was taken to 2,000 ft. during a cross-country trip on Monday week.





"Flight" Copyright.

A close finish for second place in the "Shell" Handicap at Hendon on Saturday between Lieut. Porte on the Deperdussin and Mr. R. Slack on the Blériot.

# FIFTH LONDON AVIATION MEETING, HENDON.

WE have had occasion before to refer to the all-weather flying at Hendon, but Whit-Monday certainly created a record in this respect. Although dismal rain was persistent during the major part of the programme, the flying went on for the entertainment of the large gathering of visitors who had turned up in spite of the unfavourable weather. Last year, under similar conditions, there would have been little probability of any visitors getting Hendon way, and in any case flying would have been postponed. There is no doubt, however, that the chance of seeing Brindejone des Moulinais—who arrived at Hendon on Whit-Sunday—make an attempt at the British height record with a passenger was to a certain extent responsible for the presence of many of the visitors on the holiday Monday. Saturday, the opening day of the meeting, by way of contrast, was fine and sunny for the greater part of the afternoon, while the wind was blowing at about 20 m.p.h. or thereabouts.

At 3 p.m. Verrier opened the proceedings with a five-minute exhibition flight on the 70-h.p. Maurice Farman biplane, after which he made five passenger flights in rapid succession. Lewis Turner then made a trial flight on the 60-h.p. Anzani-Caudron biplane. Immediately after this, the first event, the altitude contest, was started. Five machines lined up for this item, as follows:—Pierre Verrier on the



"Flight" Copyright  
M. Brindejone des Moulinais giving an exhibition flight at Hendon on Saturday on the Morane-Saulnier.

Maurice Farman biplane, H. G. Hawker on the 80-h.p. Gnome-Sopwith tractor biplane, R. Slack on the 50-h.p. Gnome-Blériot monoplane, Gustav Hamel on a similar machine, and H. M. Brock on the diminutive 35-h.p. Anzani-Deperdussin monoplane. They got away in the above order at short intervals, and in a few minutes were all nearly out of sight. The Sopwith biplane climbed in an astonishing manner, reaching an altitude of about 2,000 ft. during the time the machine had completed a wide circuit of the aerodrome. Hamel also made good progress, while the little "Dep." made a splendid show. The first down was Hamel, who had been up for about twenty minutes, whilst Slack, Verrier, and Brock followed at short intervals, the latter descending with a fine *vol plané*. Hawker on the Sopwith was, however, nowhere in sight, and the results were announced before he landed, some 40 mins. from the time he started. The first place was given to Verrier with 4,450 ft. to his credit; Brock was second with 4,300 ft., and Slack third with 4,000 ft. Hamel retired owing to a faulty barograph, but it was announced that he had attained a height of over 7,000 ft., coming very close to Hawker's 7,400 ft. Subsequently, the results were revised and the first place given to Hawker, as it was shown that he had descended within the maximum time.



"Flight" Copyright.  
Mr. Claude Grahame-White makes a trial flight on his new Maurice Farman at Hendon Aerodrome.





M. Brindejone des Moulinais and Capt. Tyrer on the Morane-Saulnier machine at Hendon on Saturday, just about to start for a flight after M. Brindejone des Moulinais' arrival from the Continent.

After this event the speed handicap for the "Shell" 100 guineas prize was flown. In the first heat there were three starters: Lieut. Porte on the 100-h.p. Anzani-Deperdussin monoplane (scratch),

Gustav Hamel on the 50-h.p. Blériot (42 secs. start), and Verrier on the Maurice Farman biplane (48 secs. start). Porte passed Hamel on the third lap, Hamel giving up immediately after.



Jules Nardini "steeplechasing" over some of the machines at Hendon on Saturday on the Deperdussin.



"Flight" Copyright.

M. Brindejone des Moulinais after his arrival from the Continent entering the aerodrome with Capt. Tyrer for a trip on the Morane-Saulnier.

Verrier was overtaken towards the end of the last (4th) lap, so the first place went to Porte, who won by 7 secs. Three also started in the second heat: Hawker on the Sopwith tractor biplane (scratch), Slack on the Blériot (55 secs.), and Turner on the

Caudron (1 min. 57 secs.). All three came in the same order in which they started, Turner winning by 17 $\frac{1}{2}$  secs., while there was a difference of three minutes between Slack and Hawker. In the final heat of six laps, Turner, who received 2 mins 21 secs. start, won easily, Slack (1 min. 18 secs. start) being second, Porte (scratch) third, and Verrier (68 secs. start) last. The times of the starters in the final are as follows:—

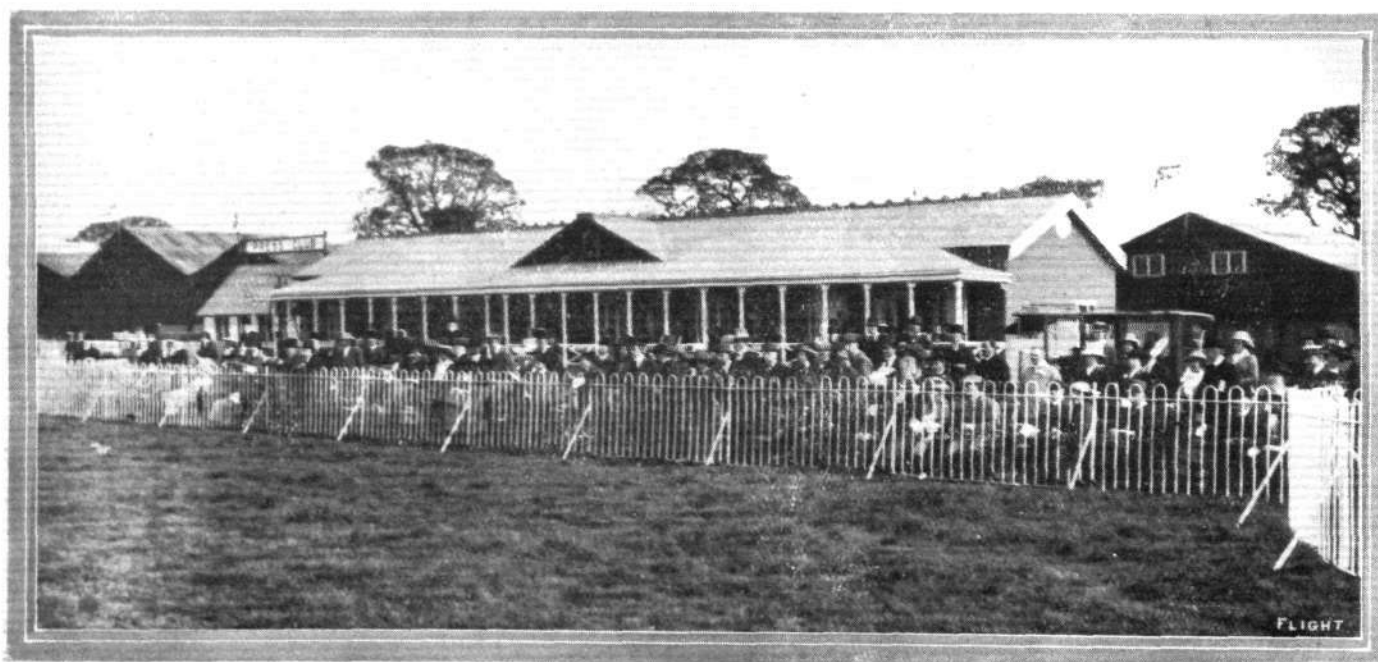
	Start.	Handicap
	m. s.	m. s.
1. L. W. F. Turner (60-h.p. Caudron biplane) ...	2 21	10 45
2. R. Slack (50-h.p. Blériot monoplane) ...	1 18	10 51 $\frac{1}{2}$
3. Lieut. Porte (100-h.p. Deperdussin monoplane) scratch		10 51 $\frac{1}{2}$
4. P. Verrier (70-h.p. Maurice Farman biplane) o 68		10 58 $\frac{1}{2}$

After this Verrier made a few more passenger flights, and Slack and Hawker left for Brooklands, the former on the Blériot which Hamel was to fly the next day, and the latter on the Sopwith tractor biplane.

Further flights were also made by Baumann on the 35-h.p. Caudron biplane, Nardini on his 50-h.p. Dep., which had been erected that afternoon, and Lieut. Porte.

Sunday's work was devoted to exhibition and passenger flights, prominent amongst which were those of Brindejone des Moulinais, on the 80-h.p. Gnome-Morane-Saulnier monoplane, Claude Grahame-White and Louis Noel on the Maurice Farman biplane, which has been acquired by the Grahame-White Aviation Co. Brindejone des Moulinais arrived at 3 p.m., having left Brussels at 10.15 that morning, and, after landing at Calais for fuel, had flown on to Hendon without a stop, via Canterbury, Gravesend, Tower of London, Hyde Park and Hampstead. After a rest he took up several passengers, the first to ascend being Capt. Tyrer, while Mm. Saulnier also took a trip. This machine is very fast, and its extremely clever young pilot steers fine bankings and spirals; his landings, also, are very neat.

The following is a complete log of the flying during the afternoon:—3 p.m., Verrier on the aircraft Maurice Farman; arrival of Brindejone des Moulinais; 4.15, Grahame-White on the G.-W. Maurice Farman with passenger; 4.25, Do.; 4.26, Verrier on the Maurice Farman; 4.30, Turner on the 60-h.p. Caudron; 4.31, Noel on the G.-W.-Maurice Farman; 4.33, Verrier on the Maurice Farman with passenger; 4.54, Noel on the G.-W.-Maurice Farman; 5, Turner on the Caudron; 5.2, Nardini on his 50-h.p. Deperdussin; 5.8, Brindejone des Moulinais with Capt. Tyrer; 5.30, Grahame-White on the Maurice Farman with passenger, off to tea at Miss Maxime Elliott's residence at Bushey; 5.33, Nardini on the 50-h.p. Dep.; 5.45, Verrier on the Maurice Farman, followed shortly after by des Moulinais with passenger; 6.26, Nardini on the Dep.; 6.28, Grahame-White arrives back accompanied by Lady Rosemary Leveson Gower; 6.30, des Moulinais with passenger; 6.33, Noel on the Maurice Farman with Manton as passenger; 6.48, des Moulinais with Mm. Saulnier; 6.55, Hamel arrives back from Hendon; 7, Noel on the Maurice Farman with passenger; Grahame-White on the Maurice Farman



"Flight" Copyright.

AT HENDON, WHITSUNTIDE.—A view of the new tea pavilion and Press room in the half-crown enclosure.



with the Duchess of Sutherland as passenger; 7.8, Slack on the Blériot; 7.15, Grahame-White on the Maurice Farman with passenger; final flight by Noel on the Maurice Farman.

The first event on Monday's programme was a bomb-dropping contest, which was won by Turner on the 60-h.p. Caudron biplane, whose average of three shots was 36 ft., Noel was next with an average of 76 ft. The other competitors were as follows:—Slack 85 ft., Verrier 127 ft., and Brock 134 ft. The next event was the cross-country handicap for the "Giesler" challenge trophy (held by James Valentine) flown over three circuits of the Elstree course. Eight started in this event, which resulted as follows:—

#### Giesler Challenge Trophy.

	Start.	Handicap Flying Time.
	m. s.	m. s.
1. B. de Moulinais (80-h.p. Morane-Saulnier)...	scratch	37 11
2. H. M. Brock (35-h.p. Deperdussin) ...	13 18	29 27
3. P. Verrier (70-h.p. Maurice Farman) ...	7 25	40 18
R. Slack (50-h.p. Blériot) ...	6 22	40 31
L. Noel (70-h.p. Maurice Farman)...	7 16	42 50
L. Turner (60-h.p. Caudron) ...	9 7	retired
J. Nardini (50-h.p. Deperdussin) ...	4 35	retired
Lieut. Porte (100-h.p. Deperdussin) ...	2 0	retired

During this race the rain came down very heavily causing Turner,

Porte, and Nardini to retire. The others, however, kept going, the little Morane-Saulnier monoplane showing a remarkable turn of speed, but only managing to pass Brock on the school "Dep." at the end of the last home journey. The speed handicap was then decided, it being flown in two heats of four laps each and a final also of four laps. Des Moulinais was at scratch in the first heat, but lost some seconds in starting. Nevertheless, he made up for lost time by his skilful steering and finished third, Verrier and Turner being first and second respectively, with Brock fourth. In the second heat there was an exciting finish between Noel on the Maurice Farman biplane and Slack on the Blériot monoplane. It was a case of "ding dong" nearly all the time, for first one would lead and then the other. Finally, Noel crossed the line two seconds ahead of Slack. The final heat provided another exciting struggle, this time between Verrier and Slack. The result of the final heat is as under:—

#### Speed Handicap. 4 laps (6 miles).

Prizes presented by Mr. Horace Goldin.

	Start.	Handicap Time.	Net Time.
	m. s.	m. s.	m. s.
1. L. Turner (60-h.p. Caudron biplane) ...	0 35	7 11	7 11
2. L. Noel (70-h.p. M. Farman biplane) ...	0 15	7 15	6 55
3. P. Verrier (70-h.p. M. Farman biplane) ...	scratch	7 19	6 44
R. Slack (50-h.p. Blériot monoplane) ...	0 2	7 20	6 47

## THE COMMAND OF THE AIR.

A SUGGESTIVE communication has been issued by the German Navy League as a comment upon the recent Mansion House meeting, got up by the Navy League, and the resolutions passed thereat. The following is a translation of the German response:—

#### "England's World-wide Dominions.

"Ever since Trafalgar, Europeans have, more or less, been accustomed to allow that the command of the seas belonged to Great Britain and to accept this as a historical right. Of such a proposition there can be no question; but it requires no particular proof that the whole of the sea-going world believes the English superiority in ships of war has for its objective the annihilation of the next two strongest fleets. Present-day Englishmen make use of the prevailing idea, and a newspaper recently wrote: 'At Trafalgar Nelson gave us the command of the Sea, shall we let it be wrested from us?'"

"To ensure against this, all the efforts of the Nation are turned, and especially those of the First Lord, Mr. Churchill, who has not been prevented by his proposal for a year's holiday in the ship-building line, from also taking over, in addition to the five super-Dreadnoughts of this year's programme and the five Colonial battle-ships, the two ordered by Turkey, which are equal to the newest type of English warship.

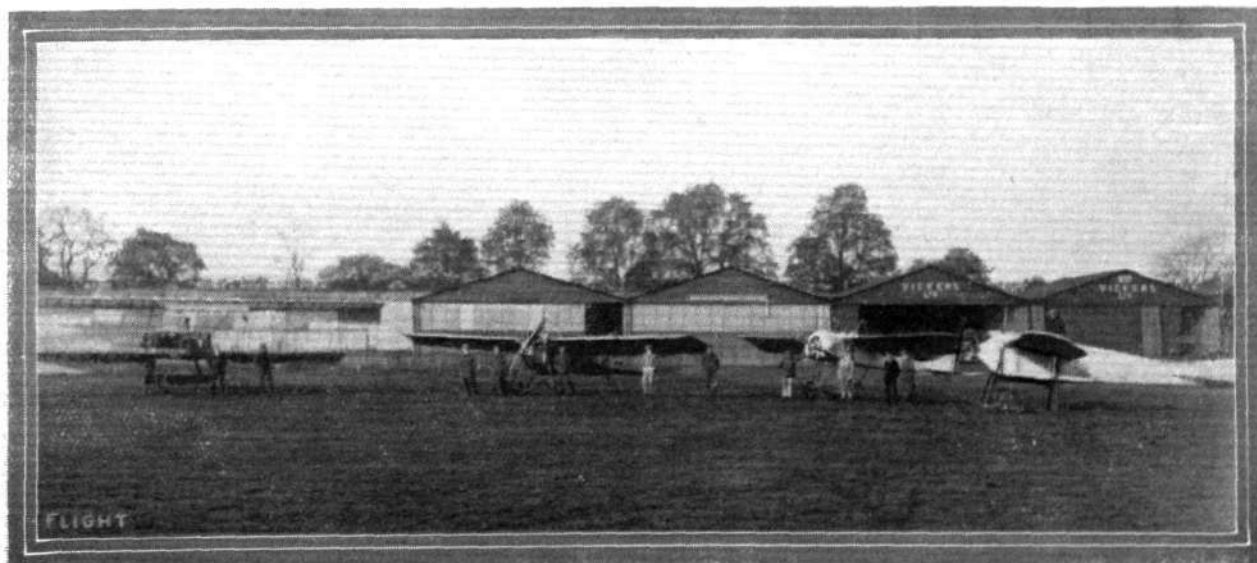
"Close on this comes the news of the intention seriously to undertake the conquest of the Air. At a public meeting just held at

the Mansion House, under the presidency of the Lord Mayor—a meeting organised apparently by the Navy League, and attended by many members of both Houses of Parliament and by Bankers and Financiers—two Resolutions were proposed and carried unanimously which seem far-reaching and likely to have results.

"The second Resolution is as follows:—'In view of the rapid development of Aircraft for defence and the large sums provided by Foreign Governments for the construction of airships, aeroplanes, and auxiliary equipment, the time has come when this country must undertake such measures of preparation as will tend at the earliest possible moment to give Great Britain an ample margin of air supremacy in airships and aeroplanes as against the next strongest naval power.'

"This, of course, refers to Germany. It would be interesting to know on what this claim is founded. That England's world-wide Colonial Empire and unsurpassed sea-trade should be the reason cannot be admitted. On the contrary, it is probably due to the ineradicable idea that the German fleet is intended for aggressive purposes, and that this is why our Air-service is being strengthened. How 'fixed ideas' will, as a matter of fact, get the better of one!

"Never before in the world's history has it been given to one people to possess and dominate the whole Earth, the Sea and now even the Air. But, even for the British, Providence has drawn a boundary line."



Ready for the day's work at the Vickers Flying School at Brooklands Aerodrome.

## ROYAL FLYING CORPS.

THE following appointments were announced in the *London Gazette* of the 2nd inst. :—

**R.F.C.—Military Wing.**—The undermentioned to be Flying Officers :—Lieut. W. Lawrence, 7th Battalion the Essex Regiment. Dated December 6th, 1912. Lieut. Archibald C. H. MacLean, the Royal Scots (Lothian Regiment), and to be seconded. Dated April 11th, 1913. Capt. William D. Beatty, Royal Engineers. Dated April 11th, 1913. Capt. Andrew G. Board, the South Wales Borderers, and to be seconded. Dated April 18th, 1913.

**R.F.C.—Military Wing.**—*Special Reserve of Officers.*—Second Lieut. (on probation) William E. Gibson resigns his commission. Dated May 3rd, 1913.

The following appointment was announced by the Admiralty on the 2nd inst. :—

Carpenter T. D. Jones to "Actæon," additional, for the Isle of Grain Air Station, May 1st.

The following appointments were announced by the Admiralty on the 3rd inst. :—

Lieuts. I. T. Courtney, R.M.L.I., and G. V. Wildman-Lushington, R.M.A., to the "Actæon," additional, for staff of the Royal Naval Flying School as Flight Commanders, to date April 15th; C. E. Rathbone, R.M.L.I., to the "Actæon," additional, as Flying Officer, to be attached to the Royal Naval Flying School, temporary, to date April 17th.

Mr. I. G. Vaughan Fowler to the "President," additional, as Probationary Sub-Lieutenant, R.N.R., for course of instruction at the Central Flying School, to date May 17th.

The following appointments were announced in the *London Gazette* of the 6th inst. :—

**R.F.C.—Naval Wing.**—Lieut. Ivon Terence Courtney, R.M.L.I., and Lieut. Gilbert Vernon Wildman-Lushington, R.M.A., are granted the temporary rank of Captain while holding the appointment of Flight Commander in the Royal Flying Corps. Dated April 15th, 1913.

**R.F.C.—Military Wing.** *Special Reserve of Officers.*—Second Lieut. (on probation) Henry de G. Warter is confirmed in his rank.

The following appointment was announced by the Admiralty on the 7th inst. :—

Sub-Lieut. F. E. T. Hewlett, to the "Hermes," on commissioning, to date May 7th.

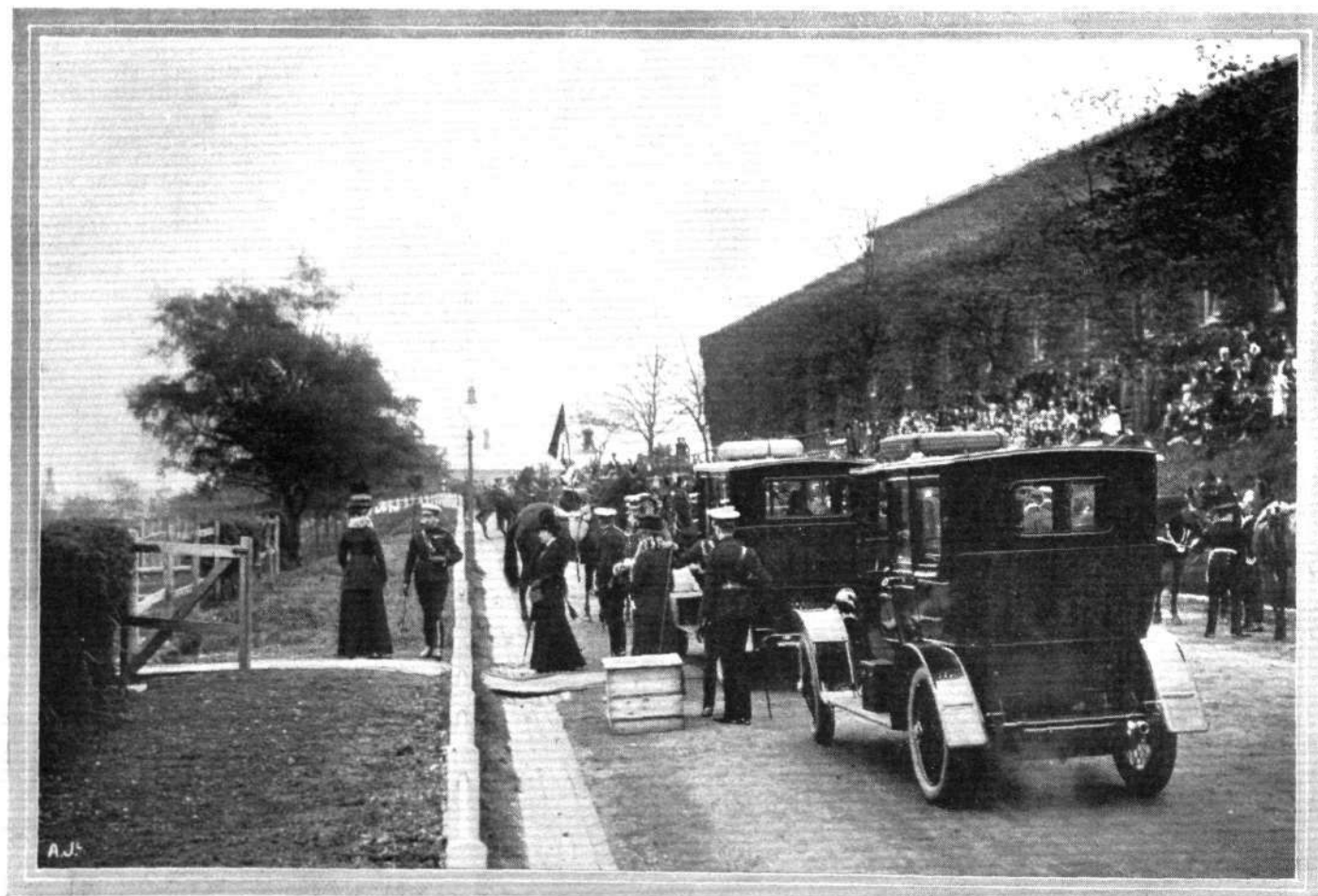
The following appointment was announced by the Admiralty on the 8th inst. :—

R. Hargrave Kershaw, R.N.R., to the "President," additional, as probationary Sub-Lieut., for course of instruction at the Central Flying School, to date May 17th.

The following appointments were announced in the *London Gazette* of the 9th inst. :—

**R.F.C.—Military Wing.**—The undermentioned to be Flying Officers. Dated April 17th, 1913 :—Capt. Clive Mellor, Royal Engineers; \*Capt. Herbert C. Macdonnell, the Royal Irish Regiment; \*Capt. Frederick St. G. Tucker, the Worcestershire Regiment; \*Lieut. Anketell M. Read, the Northamptonshire Regiment; \*Lieut. Edward G. Harvey, the Duke of Edinburgh's (Wiltshire Regiment); \*Lieut. James E. G. Burroughs, the Duke of Edinburgh's (Wiltshire Regiment); \*Lieut. Hugh F. Glanville, the West India Regiment; \*Lieut. Felton V. Holt, the Oxfordshire and Buckinghamshire Light Infantry; \*Lieut. Leonard Dawes, the Duke of Cambridge's Own (Middlesex Regiment); \*Lieut. the Hon. John D. Boyle, the Rifle Brigade (the Prince Consort's Own); \*Lieut. Arthur H. L. Soames, 3rd (King's Own) Hussars; \*Lieut. Francis G. Small, the Connaught Rangers; \*Lieut. Alan B. Thompson, the East Lancashire Regiment; \*Lieut. Desmond L. Arthur, 5th Battalion the Royal Munster Fusiliers; Lieut. E. L. Conran, 2nd County of London Yeomanry, Territorial Force; and Second Lieut. Norman S. Roupell, Special Reserve.

\* To be seconded.



THE KING AND QUEEN AT ALDERSHOT DURING WHITSUNTIDE.—Our photograph shows the King and Queen, accompanied by Princess Victoria and Princess Mary, arriving at the Royal Flying School.

## FROM THE BRITISH FLYING GROUNDS.

### Brooklands Aerodrome.

MONDAY, last week, Mr. J. Alcock out testing Mr. Muller's new biplane to Chertsey and back at an altitude of 1,500 ft. Mr. Andreae of the Vickers School passed his *brevet* tests in splendid style, rising easily to an altitude of nearly 1,000 ft.

Mr. Hawker, Tuesday, made further tests with new Sopwith tractor biplane (three-seater), fitted with 80-h.p. Gnome engine. Major Cameron, one of the Vickers pupils, passed his *brevet* tests in good style, flying steadily throughout, and landing on the mark itself.

Mr. Hawker took up two passengers in the new Sopwith tractor biplane for half an hour's flight at an altitude of over 1,000 ft. on Wednesday.

Thursday, Mr. Gordon Bell made first test of new Martin-Handasyde monoplane fitted with 120-h.p. Austrian-Daimler engine.

Further test on Friday of new Martin-Handasyde monoplane by Mr. Gordon Bell. Mr. Hawker flew new Sopwith tractor biplane to Farnborough, where he carried out an official test, recording the speed at 73.6 miles per hour.

Mr. Hawker flew to Hendon, Saturday, on new Sopwith tractor biplane, where in the afternoon he won the altitude competition in brilliant style, the machine easily climbing to 7,500 ft. in 15 mins.—or 3,000 ft. more than the next competitor. At 7,500 ft. he was lost to sight in the clouds, and descended at a point outside the aerodrome with engine still running, and returned to Hendon after having ascertained where he was. This machine is one of those ordered for the Admiralty. Mr. Hawker returned to Brooklands in the evening just before dark. Mr. Slack flew over from Hendon on a Blériot single-seater, and left the machine for Mr. Hamel's use the following day.

Fine cross-country flights on new Martin-Handasyde monoplane by Mr. Gordon Bell, the machine (although not built for speed) easily reaching 80 miles an hour, climbs quickly, and should prove of the utmost value for fast scouting purposes.

The finest flying of the year took place Sunday. In the afternoon, Mr. Hamel on his single-seater Blériot monoplane, and Mr. Gordon Bell on the new Martin-Handasyde monoplane, started off at the same time, thus giving an excellent opportunity to the large number

of spectators of comparing the different types of machines. Mr. Alcock was next out on Mr. Ducrocq's Henry Farman biplane. Then Mr. Hamel gave another fine exhibition flight. Mr. Merriam was out on two different Bristol biplanes. Mr. Knight was on the Vickers-Farman biplane. At one time two monoplanes piloted by Messrs. Hamel and Gordon Bell, and two biplanes piloted by Mr. Knight (with pupil) and by Mr. Hawker (with passenger) were all in the air together. Mr. Bendall was also out flying solo and with pupils. Several of the Vickers and Bristol pupils also made fine solo flights. Mr. Alcock took Mr. Muller's machine for another cross-country flight at 1,000 feet, but had to come down owing to engine troubles. Mr. Merriam finished his day's work with one of his fine spiral *voilà* descents from a great height with engine cut off. Mr. Hamel flew to Hendon at 5.45 p.m. Mr. Hawker was out testing engine of Sopwith hydro-aeroplane.

Great interest was again taken in the ballot for the free flight, the numbers for which were drawn by Mrs. Thirkell White, of Winterbourne, Weybridge, who had the novel and pleasing experience of drawing the lucky number for herself, and was taken up for a nice trip in the air by Mr. Knight on the Vickers-Farman biplane.

On Whit-Monday Commander Samson, carrying Lieut. E. B. Parker as a passenger, flew over to breakfast from Eastchurch in the wet on a Short biplane fitted with a 70-h.p. Gnome engine. He also made several circuits during the motor racing.

Owing to the strong wind and the rain only three competitors faced the starter in the Whitsun Aeroplane Handicap. The first to start was Mr. Alcock, winner of the Easter Monday Handicap, on Mr. Ducrocq's Henry Farman biplane, but after a plucky fight against the strong wind he got blown down just as he was about to leave the aerodrome, and had, perforce, to abandon the race. Mr. Hawker on the new Sopwith tractor biplane, who was in receipt of an allowance of 76 seconds from the scratch man, was next away, followed by Mr. Gordon Bell, on scratch, on the new Martin-Handasyde monoplane. An excellent race between these two machines resulted. Mr. Hawker made the quickest start, Mr. Bell losing some few seconds at starting. At the first turning point Mr. Bell had picked up 36 seconds on Mr. Hawker, part of which he



STEAM AND PETROL.—Pierre Verrier and a passenger pass a Midland express on the Maurice Farman at Hendon Aerodrome, May 3rd, 1913. From a sketch by Roderic Hill.



lost in having to make a wider turn than Mr. Hawker. The second time at the turn Mr. Bell had gained another 10 seconds, but again lost time in turning, and in the end Mr. Hawker won a good race by 39 seconds.

Next Sunday an interesting competition has been arranged in which pupils from the various flying schools will compete, amongst the entrants being Vickers School: Messrs. Wight, Waterfall and Andreae; Bristol School: Messrs. Merrick and McLellan. The competition will take the form of bomb-dropping and alighting from 100 ft., in the latter case with engine shut off.

**Bristol School.**—Merriam testing biplane Sunday, last week, afterwards giving tuition to Lieuts. Priesley and Vernon (Salisbury pupils), then up with Lieut. Wall on straights. He then made a solo to finish up, as it was getting too bad for school work, and later took up winner of ballot for free flight. Next day, Merriam for test, with Lieut. Duncan as passenger; then behind this pupil on straights, afterwards taking this pupil across country to Chertsey and back, practising for Whit-Monday race.

Merriam test, afterwards giving Lieut. Duncan a good deal of instruction in front and back seat. Major Merrick tuition in front seat; afterwards this pupil alone for first time, making several good straights and landings. Merriam then giving instruction to Lieut. Duncan on straights and circuits. Major Merrick again on straights.

Tuesday, Merriam testing. With Major Merrick afterwards, this pupil flying straights very well. Merriam with Lieut. Duncan, then this pupil alone making short hops, doing very well. Merriam then took Major Merrick to show him where to make his first circuit, which he afterwards accomplished in good style. Merriam then for solo, and found weather getting too bad for further school work. Bendall for test with Lieut. Morgan (prospective pupil) as passenger. On Wednesday, Major Merrick doing circuits; Lieut. Broder straights and half-left hand turns; Lieut. McClellan for a solo; Bendall up behind Lieut. Duncan; Major Merrick figure of eight; Lieut. Broder, straights; Merriam, two circuits, with Lieut. Duncan as passenger.

No flying Thursday, wind and rain all day. Friday, Merriam for high flight before pupils arrived. Major Merrick straights, Lieut. McClellan straights and circuits, Merriam up twice with Lieut. Morgan. Merriam for test, then with Lieut. Noott (prospective pupil), then up with Lieut. Wall twice; up again with Lieut. Duncan and Mr. Harris. Bendall up with Lieut. Morgan. Merriam for a solo. Bendall a trip to Chertsey.

Bendall for test Saturday, then with Lieut. Morgan, afterwards behind Lieuts. Wall, Duncan and Morgan.

Merriam for test with Lieut. Vernon as passenger—Bendall up with Lieut. Morgan. Merriam behind Lieut. Duncan. Merriam a high flight with Lieut. Morgan as passenger, reaching nearly 2,000 ft. making a spiral descent to hangars with engine cut off.

Merriam after test Sunday, up with Mr. Harris, then with Lieut. Morgan, this pupil having controls at intervals. Major Merrick figures of eight and practising landings for his *brevet*. Lieut. Duncan on straights. Lieut. Broder two good circuits. Merriam then for test and found it too bad for further school work. Late Merriam for test with Lieut. Vernon as passenger, afterwards giving exhibition flight in a stiff breeze. Bendall later for test, then up twice behind Lieut. Wall on straights. Lieuts. Broder and McClellan solo each. Merriam up with Lieut. Morgan, then with Lieut. Noott (new pupil). Bendall solo which finished the evening's work.

**Howard-Flanders School.**—Monday, last week, Dukinfield-Jones a few straights, then circuits  $\frac{1}{2}$  hr. Layzell-Apps rolling 10 mins., then Jones up again for 20 mins. 5 a.m. Tuesday, Dukinfield-Jones up for 20 mins., came down with missing engine. Up again for  $\frac{1}{2}$  hr. Wednesday, Dukinfield a few circuits testing engine. Then up for  $\frac{1}{2}$  hr. Engine running badly, so dismantling.

**Vickers School.**—Monday afternoon, last week, Knight testing biplane solo, then with Mr. Mitchell. Mr. Orr Paterson then went for circuit solo. Knight testing No. 5 mono., then Mr. Waterfall circuits at 1,500 ft. Mr. Mitchell and Mr. Orr Paterson alternately good flights on biplane, increasing in height each time. Knight then tested condition of air, after which Mr. Andreae went for his *brevet* on biplane, getting through in fine style with good banked turns and excellent landings. Messrs. Mitchell and Orr Paterson circuits on biplane; Mr. Waterfall with passenger on biplane. Mr. Andreae then went on to No. 3 mono. for straights, with Knight in instructor's seat, afterwards Mr. Andreae did some very good straights solo.

Early Tuesday morning, Knight on biplane with Major Cameron in back seat. Then Major Cameron solo for circuits, figures of eight and landing practice. Messrs. Mitchell and Orr Paterson alternately circuits on biplane. Knight then went on biplane with Mr. Waterfall as passenger to test conditions for *brevet*. Major Cameron then went for his *brevet* on biplane, getting through very well indeed in rather a bumpy wind. In the evening Knight testing No. 3 mono. followed by Mr. Andreae straights for 30 mins.

Early Wednesday morning, Knight testing biplane then handing over to Mr. Mitchell, who did some excellent figures of eight at 300 ft. This pupil then went up again for circuits and landing practice. Mr. Andreae straights on No. 3 mono. for 30 mins. Lieut. Blatherwick straights on No. 3 for 10 mins. Mr. Mitchell on biplane, circuits at 500 ft. with good *vol plané*. Knight with Mr. Waterfall, circuits on biplane.

Friday evening, Wright testing biplane; Mr. Mitchell solos; Mr. Paterson solos; Mr. Mitchell figures of eight at 400 ft. Mr. Paterson up for 15 mins., finishing with nice *vol plané*. Mr. Andreae and Mr. Waterfall both out on biplane for joy rides, Knight finishing up the evening by taking M. Bousier for a fine flight.

Next morning, Capt. Wood testing new biplane with new Vickers 7-cyl. radial engine. Knight on school biplane; Mr. Waterfall trip to Chertsey Bridge and back; Mr. Mitchell and Mr. Paterson figures of eight and landing practice. In the evening, Mr. Blatherwick and Andreae out on No. 3 mono. for 1 hour. Knight with passenger on biplane; Mitchell and Paterson good flights; Knight up with Mr. Beaver (new pupil), and also trip to prospective pupil.

Sunday morning, Knight testing new biplane, fitted with 70 h.p. Gnome, flying well for half an hour, showing fine speed with increased engine power. Knight instruction to Mr. Beaver; Mr. Mitchell and Mr. Paterson both out for solos, both being quite ready for *brevet*. Knight again out with Mr. Beaver; Capt. Wood on new machine. In the afternoon, Knight passenger-carrying on biplane. All pupils flying alternately.

**London Aerodrome, Colindale Avenue, Hendon.**

**Grahame-White School.**—Monday, last week, Mr. Bayetto out at 5.35 p.m., on No. 2B, doing circuits and practising figures of eight. Mr. Manton out later on same machine. Next day, at 6.15 p.m., Mr. Manton went out on No. 2 Blériot, also Mr. R. H. Carr, doing circuits on No. 7, followed by Sir Bryan Leighton doing straight flights with Instructor Manton in passenger seat.

Sir Bryan Leighton out at 6.40 a.m., Wednesday, doing straights with Instructor Cheeseman. Thursday, wind too strong.

On Friday, Sir Bryan Leighton out at 6.50 a.m., having good practice on No. 7, doing straight flights with Instructor Cheeseman, afterwards doing straight flights alone. Sir Bryan Leighton out again Saturday, at 5 p.m., doing half an hour's solo straights on No. 7, after the machine being tested by Instructor Cheeseman.

**Blériot School.**—On Tuesday, last week, Messrs. Gandillon and de Villiers were both out practising; the former did two circuits at a good altitude on No. 4, and the latter was doing good rolls on No. 1. He has much improved in his handling of the machine, being much quicker on the controls. The following day Mr. Reilly flew No. 3 very well indeed, doing four circuits at about 200 ft., and landing with a nicely calculated *vol plané*. He is now ready for his *brevet*, and is going to attempt the necessary flights on the first fine day. Mr. L. Desoutter went aloft for his ticket, but after getting up to about 150 ft., and doing two trial circuits, found the wind too strong, and wisely descended to await a more favourable opportunity. The other days of the week were too windy for any outdoor work.

**British Deperdussin School.**—About 5 p.m. Monday, last week, Lieut. Bourke flew a couple of straights followed by a circuit on No. 3 machine, finishing with right-hand turn and good landing. Mr. Barron had 8 mins. on same machine at circuits and right-hand turns. Mr. Hudson the same; all doing very well. Mr. Bauman three half circuits, unfortunately bumping the piling and breaking a propeller. Lieut. Bourke, on Tuesday, took over No. 5 machine, after Mr. Spratt had tested with a couple of circuits, and put in 35 mins. at straights to get accustomed to the new machine, then flew half-a-dozen circuits in excellent style and finished with a couple of good eights. He is now ready for his *brevet*. Mr. Barron also had his first lesson on No. 5. Wednesday, Mr. Brock tested No. 5 early, then Lieut. Bourke took over and flew a circuit and a couple of good eights; Mr. Barron a couple of eights, landing well. Wind sprang up and stopped further work. Mr. Spratt took the 60-h.p. two-seater by road to Southwold, Suffolk, for Whitsuntide exhibition work. Thursday, wet and windy all day, no school work. Next day, under Mr. Brock's tuition, Mr. Bauman six straights, good landings, fairly steady flights on No. 3. Mr. Hudson six straights on same machine, landings fair. Rain and wind stopped further work, but it cleared in the evening, and at sundown Lieut. Bourke went for *brevet* tests on No. 5, and passed in good style. Mr. Brock a couple of circuits on same previously.

Mr. Barron, early Saturday morning, passed *brevet* tests at a height of 300 feet, landing well. Lieut. Porte tested 100-h.p. with several circuits. Mr. Spratt, at Southwold, testing the 60-h.p. Ground very enclosed for landing. Unfortunately, broke propeller in wire enclosure, and did other small damage, but quickly repaired. In afternoon Lieut. Porte entered 100-h.p. for speed-handicap, winning his first heat in splendid style. Mr. Brock entered the 35-h.p. No. 5 school machine for altitude contest, and reached a height of 4,300 feet—a splendid performance for this small

machine. Landed with a beautiful spiral *vol plané*. Performance greatly appreciated by crowd. Mr. Spratt, after repairing damage, took up Mechanic Barrs, at Southwold, to 1,200 ft. for 10 mins., then Mr. Miller, as passenger, went cross country to Lowestoft, passing over that town at altitude of 2,000 ft., and on return journey reached altitude of 4,000, descending in spiral *vol plané* on to Common at Southwold. Sunday, Mr. Spratt at Southwold, busy all day giving joy rides in 60-h.p. to many passengers, including several ladies. In afternoon went for cross-country flight with Mr. Miller.

Lieut. Porte entered for cross-country race Monday, but retired. Mr. Brock, on 35-h.p., came in second in same race—a splendid performance on this small machine. Mr. Brock also entered for the bomb-dropping contest.

#### Handley Page School.

ON Monday, last week, Whitehouse took the 50 h.p. Handley Page monoplane up at 5 p.m. for a  $\frac{1}{2}$  hour's flight, and gave a passenger ride to Mr. Fletcher as far as Elstree and back to Cricklewood, the round trip taking about 15 minutes. On Tuesday Whitehouse, after a short solo flight, took Baumann and Hutchinson for  $\frac{1}{2}$  hour flights each, and on Wednesday Whitehouse was up for a short trial by himself in a dusty wind. Friday evening, Pickles did a couple of solos, and then took Fletcher over to Harrow and back. Saturday morning saw Pickles flying away to Winchester on the Handley Page. Getting away at 6.30 a.m., he first called at Brooklands, and after a look round went on to Farnborough. From there he missed his way and landed some three miles past Winchester. He, however, started up again and landed at the Polo ground about 8.15. In the afternoon, starting at 3 o'clock, he gave a series of exhibition flights on the H.P. machine before a crowd numbering about 1,500 persons. On Sunday, the 50-h.p. Gnome-engine was overhauled, and on Monday wind and rain prevented flying before about 6.30 p.m., when Pickles did a short solo.

**W. H. Ewen School.**—The weather seems to be improving considerably, and during the past week the pupils at the school have been able to get in a great amount of practice. On Monday, Messrs. Turner and Baumann were doing test flights at 4.50 a.m., before handing the machines over to the pupils. Messrs. Zubiaga and Warren, on the 35-h.p. Caudron No. 1, put in several good half-circuits, while Lieut. G. Adams was flying several excellent circuits. Mr. Prosser put in a number of good straight flights. On the 35-h.p. Caudron No. 2 Lieut. W. Hicks and Messrs. Goodden and Gist were all doing splendid straight flights, with Messrs. McGregor and Cowling doing short flights on the same machine. Mr. Lewis Turner, on 60-h.p. Caudron, making several solo and passenger flights. After the usual test flights by school instructors, the pupils were out at 6.45 a.m. on Tuesday. On the 35-h.p. Caudron No. 1 Lieut. G. Adams and W. Warren were putting up some excellent circuits and figures of eight, while Mr. Prosser got in several nice straight flights. On the 35-h.p. Caudron No. 2 Lieut. Hicks and Messrs. Goodden and Gist were doing some good straight flying and practising their landings, while Messrs. McGregor and Cowling were rolling and hopping. The wind rose about 9 o'clock and stopped any further practice, but immediately after lunch the conditions were again favourable and all the pupils were out again making excellent progress.

The pupils were out at 6.20 a.m. on Wednesday, when Turner and Baumann were on the two 35-h.p. Caudrons for test flights. On the 35-h.p. Caudron No. 1, Lieut. G. Adams made several nice circuits and half-circuits, and Mr. Prosser several good straights. On No. 2 Caudron Lieut. Hicks and Mr. Goodden were doing good straight flights while Mr. Pendlebury was rolling.

On Friday, M. Baumann was on the 35-h.p. Caudron No. 2, at 5.30 a.m., going up to nearly 3,000 ft., and finishing with a beautiful spiral. The machine was then handed over to Lieut. Hicks who put in several good straights and half-circuits, while Mr. Cowling was doing some good rolling practice. Mr. Turner was testing the 35-h.p. Caudron No. 1, after which he handed the machine over to the pupils. Unfortunately, Lieut. G. Adams attempted one of his circuits too close to the ground, which he hit, doing some little damage to the biplane.

The pupils were out at 5.15 a.m. on Saturday, but there was too much wind for practice. M. Baumann, however, made a nice flight on 35-h.p. Caudron No. 2, climbing to 2,000 ft. and finishing with a nice spiral.

On Sunday the pupils were out at 5 a.m. and some good practice was put in. After a test flight by M. Baumann, Lieut. Adams and Messrs. Zubiaga and Goodden were doing straights and half-circuits, and Mr. Charles George some first rolling practice.

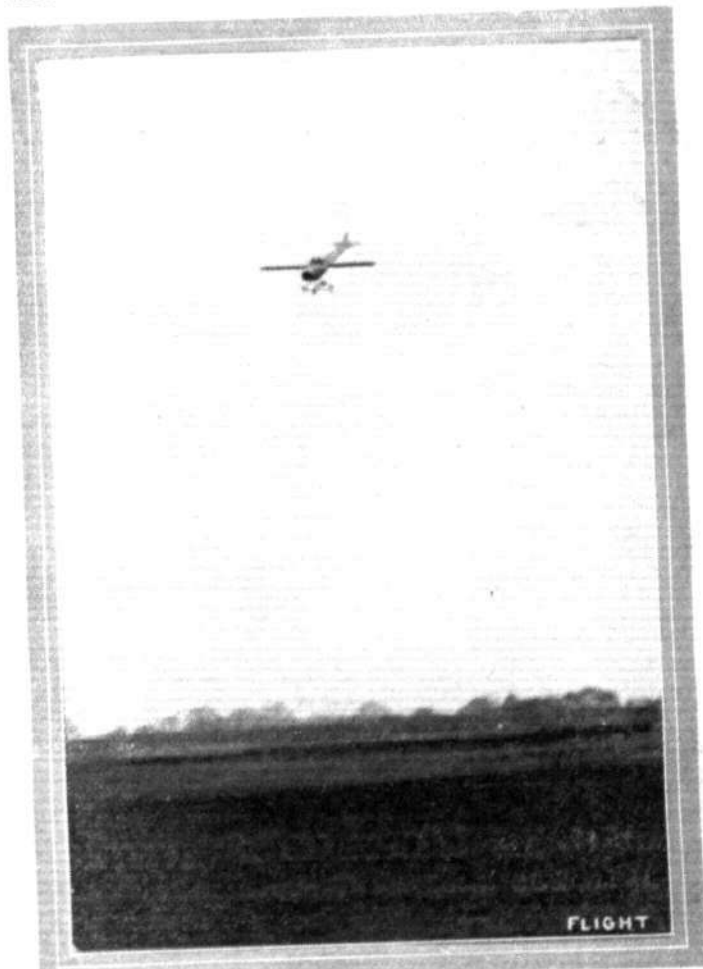
#### Salisbury Plain.

**Bristol School.**—Very little flying took place up to Friday afternoon, owing to bad weather. Pixton then took out on the biplane Lieut. Burns twice, Mr. Garnett twice, and Mr. Adams once. Busteed, on another school biplane, was giving tuition to Lieut. Priestly, R.N., twice, and Mr. Adams once. Lieut. Brodribb and Mr. Delaplane each did a good solo on the biplane, and Busteed

finished the day's work with a trip on the tractor, with Lieut. Brodribb as passenger. One short flight on the tractor by Busteed was all that was possible on Saturday. On Sunday morning Lieut. Halahan was given lengthy tuition by Busteed, and in the evening long tuition flights were given by Pixton and Busteed to Lieut. Burns, Mr. Garnett, and Mr. Adams. Lieut. Priestly, R.N., was also out under Busteed's tuition, first taking the passenger's seat and afterwards the pilot's. Mr. Delaplane did one solo, and Lieut. Brodribb two solos, each of about 15 mins. duration. Busteed, with Lieut. Brodribb as passenger, did a trip in the Renault tractor, and Pixton, on another tractor, did a solo.

**Royal Flying Corps. No. 3 Squadron.**—Fine weather prevailed on Tuesday of last week, and the R.F.C. pilots made a few flights; and on Wednesday, except for one flight, the unsettled weather caused work to be confined to workshops. Thursday was very stormy and quite impossible for any outdoor work.

There was a change on Friday, which opened a bit misty, but the R.F.C. were determined to get to Farnborough, so at 4.50 Major Brooke-Popham made a flight on BE biplane 205 to test the air for his brother officers. Finding everything satisfactory, orders were given to start at five minutes intervals, starting at 5.15 a.m. Nine different biplanes got away in splendid style, the lead being taken by Capt. Allen of A flight on BE 272. Getting to a good height he headed straight off for Farnborough, and was followed by Lieut. Wadham on BE 205, Lieut. Cholmondeley (B flight) on Henry Farman 274, Lieut. Carmichael on Henry Farman 275, and Lieut. Allen on Henry Farman 277. Major Higgin, on Henry Farman 268, started at 5.40, but after a circuit came down at Fargo Camp owing to engine trouble. This was soon put right, and the machine was well away at 6.5. Sergt. Ridd, of C flight, started on Maurice Farman 216 at 5.45, getting up very quickly to a good height, then followed Lieut. Ashton on Maurice Farman 269, and Capt. Connor on Maurice Farman 270. All arrived at Farnborough in good time with the exception of Sergt. Ridd, who had a nasty experience in mid-air near Andover. His engine suddenly stopped when at a height of 1,800 ft., but fortunately this skilled non-commissioned officer was able to bring the machine down in safety. On examination it was found that a stud had sheared off, and the connecting rod put a hole in crank-case. The machines are expected back the end of the week.



Mr. Barnwell in flight, with a passenger, on Vickers No. 8 before his recent mishap down Weybridge way.



## ROYAL AERO CLUB OF THE U.K.

Official Notices.

### Flight Over London.

ON Sunday afternoon, Brindejonc des Moulinais in his flight from Brussels to Hendon flew over the centre of London, thus contravening the rules of the Royal Aero Club. The Royal Aero Club immediately took action, and his Competitor's Certificate was withdrawn on Sunday evening.

166, Piccadilly, W. HAROLD E. PERRIN, Secretary.



## QUESTIONS IN PARLIAMENT.

IN the House of Commons on the 7th inst., Mr. Burgoyne asked the First Lord of the Admiralty whether he had received any applications from naval volunteer seamen ratings to undergo instructional courses in flying; whether such applications had been refused; and, if so, would he state the grounds upon which such refusals were based?

Mr. Macnamara: The selection of officers and men for all services connected with the Navy must rest with the Board, and it would not be in the public interest that reasons should be given for selections or rejections.

Mr. Burgoyne further asked the First Lord of the Admiralty if it was his intention to create a reserve of personnel for the Naval Flying Wing.

Mr. Macnamara: The answer is in the affirmative. The rules are now under consideration.

Mr. Burgoyne asked the First Lord of the Admiralty whether the flying machines now generally known as hydro-aeroplanes were to be given an official and less ponderous designation.

Mr. Macnamara: My right hon. friend would welcome suggested alternatives for the term hydro-aeroplane, and he would take note of all suggestions.

Col. Burn inquired how many officers of the Royal Flying Corps there were whom the Secretary for War classed as flying officers, and how many men who flew at the present time.

Col. Seely: There are 135 officers who have obtained the Royal Aero Club certificate. Of these, 82 are fully qualified first-class pilots. Nineteen warrant officers, non-commissioned officers and men belonging to the wing are now undergoing instruction: of these, 12 are second-class pilots.

Col. Burn also asked how many pilots there were in the Royal Flying Corps who could fly high-powered machines at the rate of 70 miles an hour.

Col. Seely: It is impossible to say how many officers can fly a machine at the rate of 70 miles an hour, as a considerable number of our machines have a speed of between 60 and 70 miles an hour. It is clearly impossible to say that the officers who are capable of flying these machines are incapable of flying at greater speeds. If information is desired as to the number of officers who have flown machines at 70 miles an hour it can be obtained, but we have never accepted this speed as in any way a standard for military purposes.

In reply to further questions Col. Seely said: The work connected with the Flying Corps at the War Office is performed by branches which deal with similar matters for other services. The secretary of the Flying Corps Committee receives £500 a year.

Mr. Joynson-Hicks asked the Secretary for War whether, having regard to the improvements in aeroplanes during the last few months, he would be prepared to raise the standard of effectiveness suggested by himself (Mr. Joynson-Hicks) as ability to fly at 50 miles an hour at a height of 3,000 ft., to 75 miles an hour at a height of 5,000 ft.; and, if so, how many effective machines on this basis he now had.

Col. Seely: It is not proposed to accept either of those standards of effectiveness, which have no relation to requirements for military purposes.

Other questions elicited from Col. Seely the information that twenty-eight monoplanes were in possession on March 19th of this year. He was informed that all of these were capable of being flown, but were not being used pending final consideration of the report of the Monoplane Accidents Committee. A small number of these machines are now considered to comply with the requirements of safety, and the remainder will be reconstructed.

On the 9th inst., Sir J. D. Rees asked the Prime Minister whether arrangements were being made for an aeroplane flight from England to India in October; and whether His Majesty's Government or the Government of India, or both Governments, were in any way assisting this project.

Mr. Montagu (Under Secretary for India), who replied, said: The Secretary of State has seen an announcement in the Press regarding the proposed flight. The answer to the last part of the question is in the negative.

## LIVERPOOL TO RAISE A FLYING CORPS.

IT was a representative gathering of the citizens of Liverpool which gathered at the Town Hall, on Wednesday of last week, and decided unanimously to raise a Flying Corps for Liverpool. The Lord Mayor presided and opened the proceedings by reading a letter which he had received from Col. Seely, the Minister for War. The text of this was as follows:—

"My dear Lord Mayor—

"I am much obliged for your effort. Major Sykes, the Commandant of the Military Wing of the Royal Flying Corps, is himself bringing this letter, and will be glad to give the benefit of all his knowledge of the subject which you are discussing at your meeting to-day. May I first say that we appreciate most highly the patriotic spirit which has prompted the citizens of Liverpool in putting forward the proposal which you sent to me in your letter. We have had many offers from various quarters, and after full consideration by the Air Committee, which is a sub-committee of the Committee of Imperial Defence, the general lines on which we usually reply are as follows:

"With regard to personnel the established principle is—and I think you will agree with me, it is a wise one—that those who wish to serve their country in the science of military and naval aviation should become members of the Royal Flying Corps. This corps is open not only to officers and men in the Regular Army and Navy, in the Special Reserve and in the Territorial Forces, but also to civilians. In our view it would be a great mistake to establish local corps apart from the central organization, the services of whose members will be of such inestimable value to the State in any part of the world in time of war.

"With regard to the material, it is not possible for us in the interest of the public service to accept gifts of aeroplanes or airships to which restricted conditions are attached. After consultation with Major Sykes, I think you will probably agree that this view is sound. It has occurred to me, however, that the offer of Liverpool is so exceptional, in view of the great importance of your city, that you might possibly wish to make some large and substantial contribution to our aerial defence. The complete equipment of a squadron of the Royal Flying Corps, including eighteen aeroplanes, their transport, and other accessories, amounts to close on £40,000.

"It may be that you will think that such a sum is prohibitive by its magnitude, or that your meeting could not see its way to adopt this particular suggestion, but if it were possible it would be a splendid gift, worthy of the great city over which you preside, and would be given in a form which would be of the greatest value to the State. Major Sykes, whose knowledge on these questions is, of course, exceptional, will be able to explain to you the special reasons which make it undesirable to have local corps in the aeronautical service, and will be able to elucidate any point on which you may be desirous of having further information.

"With my renewed acknowledgments of the patriotic spirit of the citizens of Liverpool in making this offer, believe me to be, yours very truly,

"JOHN BERNARD SEELY."

The Lord Mayor went on to say that in view of the great interest which Liverpool had in the preservation of British commerce, he hoped that Col. Seely's appeal was one which would be answered successfully. That Liverpool was taking the lead was a fact to be proud of, and he hoped they would do their duty.

Sir Charles Petrie moved a resolution recognising the urgent need for adequate aerial defence, and cordially approving the movement for the establishment of a flying corps to be associated with the city. The proposal to create a Liverpool flying corps was, he said, intended not merely to safeguard Liverpool from airship attack in war-time, but as a patriotic and a national enterprise, and to give a lead to other large towns to inaugurate similar schemes.

The resolution was seconded by Mr. Max Muspratt, and Professor W. H. Watkinson stated that the engineering faculty of the University would willingly give its support, and nine of their students had already volunteered for service in the corps. He also referred to the work which had been done in the neighbourhood of Liverpool by Mr. Melly and others.

Major Sykes explained the lines upon which it had been decided that the flying corps for service both with the Navy and the Army should be organised. This was no question of voluntary effort, versus Government effort, but of co-ordinating the whole thing so as to get the greatest value out of the strength available, whether in men or money. At the present time we were a long way behind France in the matter of aeroplanes and Germany in airships, and the advance on all lines had been so great recently that they wanted to work out every scheme of defence that offered. They wanted a nucleus of service, which could be called upon for war anywhere.

Amid much applause the resolution was carried unanimously.



# BRITISH NOTES OF THE WEEK.

## The King at Aldershot.

FOR those who realise the importance of aviation from a military point of view, a great object lesson was provided on Friday of last week. Simultaneously with the visit of H.M. the King to Aldershot, King Alfonso was paying a visit to Buc; but, whereas at Aldershot the Royal Flying Corps could only muster about a score of aeroplanes, King Alfonso witnessed flights by fifty-one French military aeroplanes and nine piloted by civilians during the two hours he was on the ground.

On his arrival at Aldershot the King witnessed a cavalry display, and then saw some manoeuvres by the Beta. From the airship a photograph was taken of the King and the plate sent down on a parachute and developed in one of the field dark rooms. The King and Queen with Princess Mary and Princess Victoria then inspected the Gamma and the Delta in their shed, and also the car of the new Astra-Torres airship, and subsequently the Gamma made an ascent. Then came the turn of the aeroplanes, of which twenty were drawn up in line, the types being Shorts, Avros, H. Farman, M. Farman, Breguet, and B.E. biplanes, built by British firms, and a Blériot monoplane, many of the machines having flown over early in the morning from Larkhill. Seventeen of these ascended and executed a number of evolutions, including bomb-dropping.

On Tuesday evening some night flying was indulged in, the airship "Beta" being up and cruising over the Royal Pavilion. Several aeroplanes were flying in the moonlight, and one machine owing to a failing engine brought down some telegraph wires.

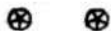
A message from the King to the troops contained the following reference:—"I was glad to find a marked development in the work and administration of the Royal Flying Corps, and what courage and *esprit de corps* animate all ranks of this newly-formed arm."

## The Bremen to London Flight.

AFTER his last unsuccessful effort for the Pommery Cup, Brindejonc des Moulinais went on to Bremen, and from there decided to pay a visit to London and take part in the Whitsun competitions at Hendon. He started on his Morane-Saulnier from Bremen on Friday of last week at 8.40 a.m., and made a first stop at Wanne in Westphalia. From there he went to Liege and then made for Calais, but a storm forced him to descend at Etterbeek, near Brussels. There he decided to stay for the night, but the weather did not greatly improve, and it was not until 11 a.m. on Sunday morning that he was once more in the air, and after an hour and a half's flying reached Calais. An hour's rest was then taken before making a start on the cross-Channel trip. Getting away from Calais at 1.30 p.m., he had a splendid trip across to the British coast. He steered his way to Canterbury, and then on to Gravesend. From there he made a course along the River Thames until he lost his way in the fog and found himself over Hyde Park. From there a straight run was made to Hendon, where he arrived at 3 p.m., having covered from Bremen a distance of 450 miles.

## Over the Channel to Lunch.

IT was a quaint conceit of Lieut. de Laborde to fly over to Dover on Friday of last week in order to have lunch with his brother, but it afforded yet another instance of the progress which is being made in aviation. Although he only secured his certificate on April 20th, Lieut. Laborde has already shown that he is a born airman. Starting from Buc he steered his Blériot to Crotoy, and



## King Alfonso at Buc.

NOT only did King Alfonso see 60 aeroplanes when he visited Buc on Friday of last week, but he also learnt that many of the pilots had flown long distances in order to take part in the review. Lieut. Munch had piloted a Blériot from Avor, some 250 kiloms. away, seven officers had flown over from Sissonne Camp, three from Rheims, three from Lyon, and one from Mailly Camp. King Alfonso was received at Buc by the President, M. Poincaré, the Minister of War, M. Etienne, and the Minister of Public Works, M. Gauthier, and after a visit to the thirty Bessonneau hangars, used for housing the machines, considerable attention was paid to the travelling workshops and the other motor vehicles, designed for attendance upon aeroplane squadrons. Then the motors were started up, and fifty-one military machines were sent up. This was followed by a marvellous display by the civil pilots. Chevillard on the H. Farman, Garros on the Morane, Guillaux on the Clement-Bayard, Prevost on a Deperdussin, Perreyon on a Blériot, Gobe on a Nieuport, and others, all past masters on their particular type of machine. Two airships were also seen, the "Commandant Coutelle" and "Le Temps," both of the Zodiac type, and the former piloted by Comte de la Vaulx.

after a rest of just under an hour flew across the Channel to Dover, the total time, including the stop, being 3 hrs. 15 mins. Leaving Dover at 6.25 he arrived back at Crotoy at 7.40, and stopped there for half an hour. He subsequently reached Buc safely at 10.15. Altogether he had covered 600 kiloms.

## The Daily Mail Race.

SOME particulars were given in our last issue, and now some further details are announced regarding the competition for the £5,000 prize, offered by the *Daily Mail*, for a race round Great Britain. Starting from Southampton, it is proposed to establish controls round the coast at each of which competitors must make a compulsory stop of at least 30 mins., and these times will not count in the maximum time of 72 hours, within which the flight of about 1,600 miles must be completed. Controls have already been arranged for at:—

Southampton.	Scarborough.	Comarty.	Dublin.
Dover.	Montrose.	Oban.	Milford Haven.
Yarmouth.	Peterhead.	Belfast.	Falmouth.

A passenger must be carried throughout the flights. Pilots or (and) passengers may be changed during the contest. This provision is inserted for the reason that the race is intended as a test of the machines rather than of human endurance.

Each waterplane will have five parts of the motor and five parts of the machine marked by the Royal Aero Club. These parts will be verified at each control, and at least two marked parts of each of these five must be in place on arrival at each control. Floats, landing chassis, and propellers will not be marked.

Competitors may take their machines ashore at any control for repairs or replenishment of fuel or oil. Time occupied in these operations will count as part of the 72 hours' limit.

As these regulations have not been finally passed by the Royal Aero Club they are, of course, subject to revision.

## A Naval Station at Walney Island.

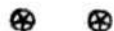
IT is announced that the Admiralty have arranged for the establishment of a naval aviation base at Walney Island, near Barrow-in-Furness, and that four hangars are to be erected there.

## The Wilbur Wright Memorial Lecture.

THE first Wilbur Wright Memorial Lecture, under the auspices of the Aeronautical Society, is to be given by Mr. Horace Darwin, F.R.S., at the Royal United Service Institution, on Wednesday, May 21st, at 8.30 p.m. Preceding the meeting, the council will entertain the lecturer and other distinguished guests at dinner, at the Whitehall Rooms, Hotel Metropole, at 7 p.m.

## Flying Pictures at the Palace.

AT the invitation of the directors of the Grahame-White Aviation Co., a number of aviators and others interested in flying assembled at the Palace Theatre on Friday of last week, and witnessed some cinematograph pictures, including some very fine films of the marvellous flying which has recently been seen at Hendon. The first part of the programme consisted of Cherry Keaton's pictures of hunting wild animals, which provided ample excitement, and from that the audience was led on to the study of birds. Many of these pictures were not only interesting but instructive. Then was witnessed some of the "stunts" to be seen at Hendon, and also some impressive pictures taken of and from a Zeppelin airship *en voyage*.



## Two 390-kilom. Trips in a Week.

TWICE during last week Eugene Gilbert made the 390-kilom. journey from Paris to Clermont-Ferrand. On the first occasion he left Villacoublay on his Morane-Saulnier monoplane, which is fitted with a Rhone motor, at 8.50 a.m., on the 7th inst., and after a non-stop flight by way of Montargis, Nevers, Moulins, and Gannat, he made a perfect landing at the Clermont-Ferrand aerodrome at 12.15, his time for the trip being 3 hrs. 25 mins. Later in the evening he flew with Vidart to Amberieu.

On the second trip, on the 10th inst., his mount was his Henry Farman, which also has a 9-cyl. 80-h.p. Rhone engine, and this time he started from Etampes at 5.30 a.m., and got to Clermont-Ferrand at 9.30. It is interesting to note that the Rhone motor on this trip, which was made for a greater part through heavy rain, consumed 28 litres of fuel and 3 litres of oil.

## 400 Kiloms. on a Nieuport.

SERG. PICQUET, on a Nieuport—given to the French Army by public subscription—flew on the 9th inst. from Villacoublay to Orleans and Chartres and back, covering the 400 kiloms. without incident in the face of very bad conditions. The flight counted towards the qualification for a superior *brevet*.

# FOREIGN AVIATION NEWS.

## A New Passenger Height Record.

ON a Savary biplane, fitted with a 110 Salmson motor, at the Savary Aerodrome at Chartres, on the 8th inst., Frangeois carried six passengers to a height of 850 metres. The duration of the flight was 1h. 13m. 25s., and the weight of the passengers 472 kilogs., while the total useful load, including fuel and oil, was 580 kilogs. The previous record, 650 metres, was made last February by Frantz.

## France and International Aviation.

UNDER the presidency of Councillor Colson, the French Foreign Minister has appointed a special commission composed of officials of the various Government Departments, Justice, Foreign Office, Interior, Finance, War, Navy and Public Works, to consider the questions concerning the relations of France with other countries as regards aeronautics.

## Issy to Crotoy on a Caudron.

AFTER a visit to Issy for the purpose of delivering a machine, Caudron, accompanied by his mechanic, flew back on Saturday morning from Issy to Crotoy through the rain, making a stop *en route* at Beauvais.

## Week-end Visiting on a Farman.

HAVING flown over to Tours, in order to spend Sunday with his friends, Lemaitre returned to Etampes on the 6th inst., flying the 150 kiloms. in splendid style. Both flights counted towards his qualifications for a special certificate.

## Train Joins Nieuport Firm.

M. TRAIN, the designer and pilot of the successful monoplane bearing his name, has now joined the Nieuport firm as manager of the works at Issy-les-Moulineaux.

## Fine Cross-Country Flight by M. Giraud.

ACCOMPANIED by Henry Dumas, Etienne Giraud, on his tandem Blériot, flew from Montpellier to Miramas in an hour and a quarter on the 3rd inst.

## In the Usual Dep. Style.

AMONG the many fine flights made by pupils at the Deperdussin school at Betheny on the 6th, were two of an hour and a half each by Sapper Laverlochere and Sergeant Matheron respectively, who have just finished their *apprentissage*. Lieuts. Ragon and Lamoret and Sergeants Marinkowitch and Garnier also made long flights over the surrounding country. Similar flights were made by Laverlochere and Matheron on Saturday; Marinkowitch also went to Sissonne and back, and Lieut. Adrian to Mailly and back.

## New Blériot Superior Pilots.

ON the 6th inst., at Buc, Delcamp, a National Committee pupil, passed a test for a superior *brevet* over the Buc, Chartres, Orleans, Buc course. Lieut. Loftus Bryan passed the tests for an ordinary pilot's certificate in splendid style. On the 8th inst., at Juvisy, Bosano passed the superior *brevet* tests on a Blériot, while Revol Tissot qualified at Buc on Sunday over the Cercottes-Orleans course.

## Also One at the Borel School.

LIEUT. PEGAT, of the Borel School, at Buc, also made a cross-country trip on the 6th inst., for a military certificate, his course being from Pont Levozy to Chateaufort and back. Lieut. de Vergnette, who is in charge of the Borel military school, made a very fine high flight.

## A Good Shot.

*Sous-Officier* Guitou, who has been carrying out some experimenting in observing artillery practice at Mailly Camp, has invented a sight for bomb-dropping which is giving very good results. It is fitted to a Henry Farman machine, and in the course of a flight, on the 7th inst., he dropped several bombs, and all of them landed on a target of 10 metres diam.

## Another Honour for R.E.P.

THE committee of the Aero Club of France has elected M. R. Esnault Pelterie to succeed M. Soreau as president of the commission of aviation, with Col. Bouttieaux, R. Gasnier and L. Blériot as vice-presidents, and Commandant Ferrus and the Marquis de Kergarion de Lennion as secretaries.

## Champel Visits Nevers, &c.

ON the 9th inst. Champel flew over from Juvisy to Nevers on his Anzani-engined biplane, and on Saturday he paid a visit to Autun. During a series of exhibition flights on Monday he carried a score of passengers.

## Fast Flying on a Dep.

LIEUT. LAMORET on a Deperdussin-Gnome monoplane flew on the 9th inst. from Rheims to Amiens in 1 hr. 12 mins.

## Legagneux at Orleans.

HAVING arranged to give a series of exhibition flights with Vedrines at Bourgneuf, near Orleans, Legagneux flew over from Villacoublay on the 9th inst., doing the trip in a little over an hour.

## Boulogne to Buc on a Farman.

ON his H. Farman biplane, Fischer flew from Boulogne to Buc *via* Crotoy on Saturday last. He expects to be back at Boulogne in about a week's time with a Farman waterplane.

## A Family 'Bus.

WISHING to see a gymnastic fête at Vichy on Monday, Gilbert, on his Rhone-Farman biplane, flew over from Clermont-Ferrand in half an hour. He was accompanied on the machine by his wife and father-in-law. Subsequently he made three exhibition flights, which were witnessed by the French Minister of War, who was attending the fête.

## Fine Work on Breguets.

SERGEANT BRIDOU completed his tests for a military *brevet*, on Saturday, over a course from Etampes to Chartres and Vendome and back. He was flying a Breguet machine with a Salmson engine. On a similar machine, Lieut. Prevost made a flight of an hour and a half.

## Long Flights on Nieuport.

AT Villacoublay, on Saturday, Capt. Guillaubert on a 50-h.p. Gnome-Nieuport was flying for an hour and a half at a height of 300 metres, and Lieut. de Chalonge, Sergeant Piquet and Sapper Rolane all made tests for superior *brevet*.

## Buc to Lyons on Farmans.

AFTER having flown at Buc on the occasion of the visit of King Alfonso, Lieuts. Gignoux and Mouchard on their M. Farman biplanes, started from Buc early on Sunday morning. They had a fine run to Nevers, and later in the day completed their journey at Lyon.

## Crotoy-Calais Trip on Caudrons.

ON Sunday morning Lieuts. Gerard and Le Bihan started from Crotoy on their Caudron hydro-biplanes, and after a short stop at Boulogne went on to Calais, where they landed in the harbour at 9.30. In the afternoon they returned to Crotoy.

## Guillaux at Croix St. Leufroy.

A FINE trip was made by Guillaux from Issy to Croix St. Leufroy, on Sunday morning, on his Clement-Bayard monoplane, his average altitude during the trip being about 1,500 metres.

## Caudron Bros. in the Air.

ON Sunday, while Marty was giving demonstration flights on 50-h.p. Gnome-Caudron biplanes and a 45-h.p. Anzani-Caudron monoplane, before a Dutch military commission visiting Crotoy, the Brothers Rene and Gaston Caudron arrived from Buc on a 100-h.p. Gnome-Caudron two-seater.

## Chevilliard Busy.

THREE Henry Farman machines being ready for delivery to Etampes, Chevilliard decided on the 9th that he would take them over by the air way. On the first trip he carried Paillard as a passenger, on the second journey he was accompanied by Mme. de la Roche, while the third trip was made with M. Viale.

## Long Flights on Dep. Three-Seaters.

ON the 8th inst., Lieut. Broccard on the 100-h.p. Gnome-Deperdussin, with which he has been doing some fine flying at Rheims, lately flew over to Buc with passengers and a heavy load of baggage. The next day, Lieut. Deitrich on a similar machine with Capt. Delagarde, and the baggage of the two officers, also made the journey from Rheims to Buc.

## A Mournful Echo of Monaco.

ON Saturday last the body of Gaudart, who was drowned while trying a machine at the Monaco meeting, was recovered just by the jetty of the harbour, but the head of the unfortunate aviator was missing.

## The Michelin Target Prizes.

THE Aero Club of France has decided that the competitions for the Michelin target prizes this year may be held at either of the following aerodromes: Croix d'Hins, Crau, Chartres, Buc (Farman), or Etampes (Farman).

## A Dep. for the North Pole.

A NORWEGIAN officer, Lieut. Gjertsen, who has a good deal of experience in Polar work, having been to the South Pole with the Amundsen expedition, proposes to explore the North Pole, with the aid of a Deperdussin monoplane. To that end he has become a pupil at the Deperdussin school at Betheny.



# Models

Edited by V. E. JOHNSON, M.A.

## The Colver Twin Winder for Models.

AMONGST those in the provinces who have endeavoured to encourage the art of model aeroplaning but few, if any, we should think, have done more than Mr. Edward W. Colver, the president of the Sheffield Model Aero Club.

"I first took an interest in aviation," says Mr. Colver, "at the

caster meeting. In the early part of 1910 I carried out some gliding experiments on a Chanute-type glider with a friend. I went to Germany directly afterwards, and attended the second Berlin meeting. Whilst in Germany I took up model aeroplane-making with a friend, but we had to get all the materials from England. I saw the Circuit of Britain at Hendon and Harrogate, joined the Sheffield Aero Club at the beginning of 1912, and gave the Colver cup for R.O.G. machines on joining, and the present presidential cup for hydro-aeroplanes upon being elected president in December, 1912."

Mr. Colver has also loaned his collection of aeronautical books to the club (which has now a clubroom in the centre of the city, and a



Mr. Edward W. Colver, President of the Sheffield Model Aero Club.

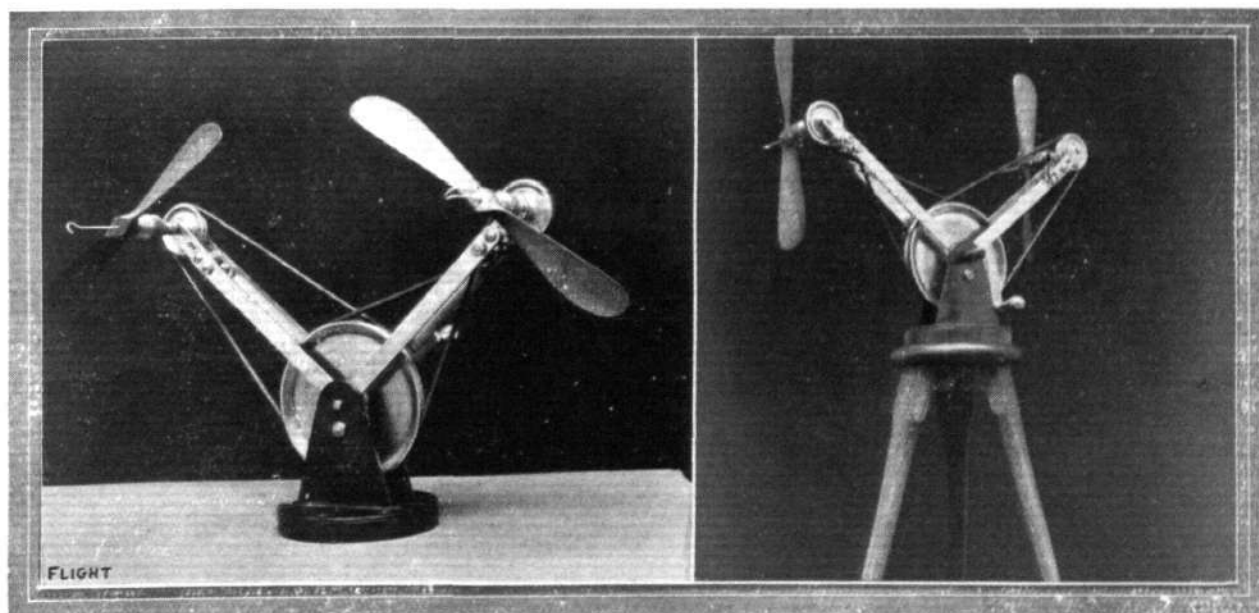
time of Latham's attempt to cross the Channel; but, as I was expecting to go to Germany at any moment, I did not join any club or take any active interest in the fostering of the aeronautical movement in this city. I first saw an aeroplane at the first Don-



The two Colver cups presented to the Sheffield Model Aero Club by Mr. E. W. Colver. On the left for R.O.G. models, on the right for hydro-aeroplanes.

fine flying ground on the outskirts), and assisted the club in many ways, not only financially, but by taking a great *personal* interest in it—which latter does so much to help a club to success.

The twin propeller winder devised by Mr. Colver was exhibited at



Twin propeller winder constructed by Mr. E. W. Colver, President of the Sheffield Model Aero Club. Front view (on the left) and view from the back as seen on the tripod.



Olympia; it was copied to some extent from one described by Mr. E. W. Twining in the *Model Engineer* (April 20th, 1911). "At the end of 1911," says Mr. Colver, "I had an idea for a geared-wheel winder, but finding suitable wheels hard to procure, I decided to construct a machine with pulleys. Just before commencing it, however, I came across the article referred to, and rather fancying the design, I decided to make one somewhat on the same lines. As in Mr. Twining's machine, the arms are movable for use with aeroplanes with propeller-centres up to 20 ins. apart, which is considerably more than the distance on the average aeroplane. The driving pulley is 6 ins. in diameter, with two V grooves for the belts. The driven pulleys are 2 ins., which gives a ratio of 3:1. The chief difference between the two machines is that, whereas Mr. Twining's was of wood, mine is constructed entirely of steel and weighs about 9 lbs., including stand. This change of material was considered advisable on account of the extra strength given both to the pulleys and the supporting arms, which have to withstand a great strain due to the necessity of having the belts especially tight in order to avoid any risk of slipping, and hence uneven winding of the propellers. A special feature of the winder is the arrangement which allows for the belts being quickly and easily adjusted. To enable this to be done, the two small driven pulleys are not fixed directly to the long arms, but to slotted extensions, by which means the pulleys can be moved nearer to or further from the driving pulley. Two small chucks are fitted to the driven pulleys to grip any tool or any extension of the propeller shafts, as may best suit any aeromodellist, which makes the machine a very useful 'club' winder. As a protection against the weather the machine is silver-plated, which greatly

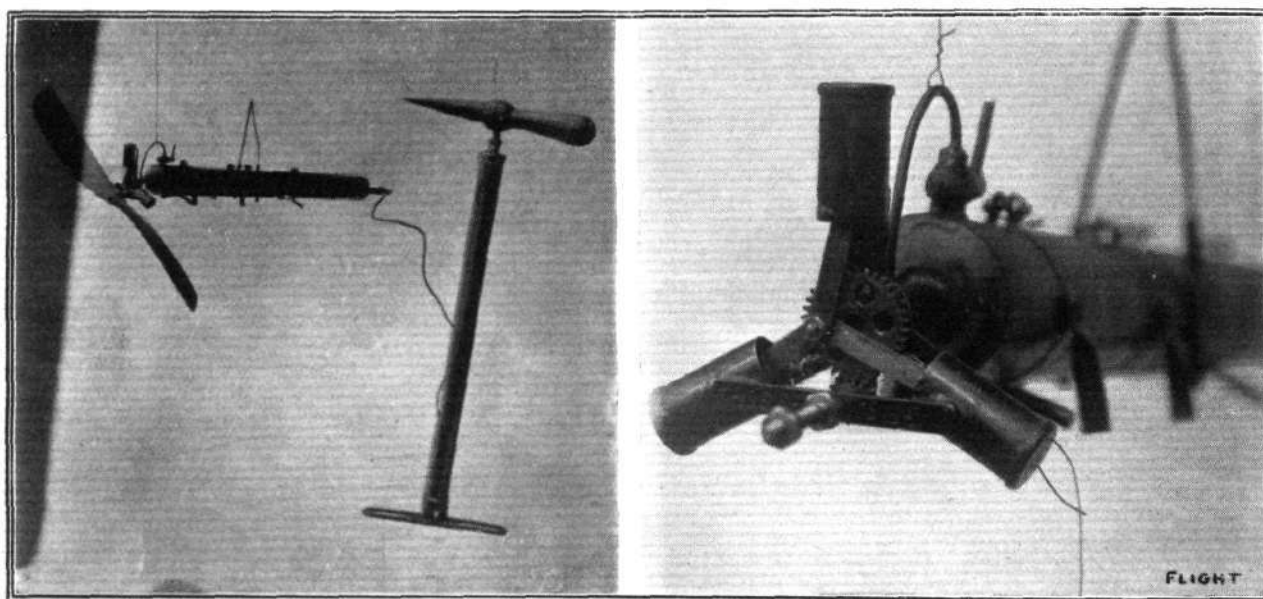
The plant is designed for a 12-in. propeller, the one sent (*centrale* type) weighs just under three-quarters of an ounce. By careful sand-papering, this weight can be nearly halved, and the efficiency considerably increased (as the writer knows from personal experience). The complete model thus need not weigh more than 9 or 10 ozs., even if that. For successful flights this requires a propeller thrust of some 2½ ozs.; this (to say nothing of anything more) can be obtained without difficulty by means of the foot pump provided, which is fitted with a metal connecting tube so as to withstand the pressure.

The feet of the pump are made to swivel upwards and lie alongside the barrel when not in use; whilst the handle unscrews, thus enabling the pump to be packed in very small space for transit. The pump barrel is plated, the entire plant being a very neat piece of work, and the price, which we understand is £2, certainly seems most reasonable.

Messrs. Summerfield state that with a special pump employing 100 strokes a thrust of 14½ ozs. and a duration of 50 seconds can be obtained. The same firm also supply petrol motors from ½-h.p. upwards, as well as the usual model aeroplaning accessories, including parcels of materials for building models, accompanied with working drawings, which should prove especially useful to novices. Anyone interested in model aviation should certainly procure one of their catalogues.

## Messrs. W. G. Evans and Sons' Timber for Model Aeroplanes.

We have received from the above firm one of their trade lists, together with samples of the wood supplied by them for model



MESSRS. S. SUMMERFIELD'S COMPRESSED AIR PLANT FOR MODELS.—On the right the very neat little engine, non-rotary type.

enhances its appearance. To save unnecessary back-aching, the machine is mounted on a three-legged stand some 2½ ft. in height, which brings the aeroplane about 3½ ft. above the ground."

We purpose giving next week the twin system of winding employed by Mr. W. H. Norton of the Reigate, Redhill and District Club.

## Messrs. S. Summerfield and Co.'s Compressed Air Plant for Models.

We give this week two photos of the above: one showing the complete plant (including propeller and pump), the other the little 3-cylinder engine; which Messrs. Summerfield have kindly sent for our inspection. The weight of the complete plant (excluding propeller) is exactly 6 oz. This includes the various fittings attached to the cylindrical reservoir, including kingpost for the wing stay wires and brass sockets into which the wing spars, chassis struts, &c., can easily be fixed. These brass sockets are attached to the reservoir by adjustable brass bands, which can be slid along this to any desired position. The length of the reservoir is 15 inches, and it answers the additional purpose of serving as the backbone or fuselage of the entire machine. Since the various sockets are adjustable, as already stated, it is obvious the plant can be equally well adapted to the building of either a tractor or a canard type of model—personally, of course, I should advise the employment of the latter type, for the initial model at any rate.

aeroplane construction. The firm guarantee that *all* wood supplied by them is of the same quality. The sample sent (3 ft. and 4 ft. lengths) include ¾ in. by ¼ in. ash, ¾ in. by ¼ in. birch plane edging, ¾ in. by ¼ in. poplar (American whitewood), ½ in. by ¼ in. silver spruce, ¾ in. by ¼ in. silver spruce, ¾ in. section silver spruce, ¾ in. section birch, ¾ in. by ¼ in. birch, ¾ in. sq. section ash, ¾ in. by ¼ in. birch, also two steamline struts, ½ in. and ¾ in. In addition to the foregoing, L-shaped section spruce, length 3 ft., weight ¾ oz., a I- or girder-shaped section spruce, 3 ft. 6 in. long, weight 1½ ozs.; also a hollow spar (blocked centre and ends), 3 ft. 6 in. long, ¾ in. sq. section, weight 14 drams, and a selection of ¾ in. birch blocks for making bent propellers.

All the wood sent is undoubtedly excellent in quality, and as the experience of the firm relative to the utility and working of many kinds of timber extends over a period of 40 years, one can quite understand they are fully competent to select only the very best for the purpose; and for aeroplane work (model or otherwise) it must be the very best. The selection sent is well-seasoned and straight-grained, two factors of primary importance.

The L- and T-shaped sections, as well as the hollow spar, are accurately and evenly cut; nor is the amount removed so excessive as to leave too frail a tube or section behind as in some samples we have seen. The firm also supply walnut veneer (¼ in. of an inch in thickness) for making light tubes, floats, &c., also T-sectioned wood as well as propellers for power-driven models. These are

usually made of French walnut, and are guaranteed free from defect in either material or workmanship. Propellers are also constructed to customers' own designs; special attention is paid to the correct balancing of the propellers. This is a very important point, because, in the case of model propellers, we have not unfrequently found them decidedly wanting in this respect.

We can certainly recommend the above to any model firm requiring timber. The reader should not fail to note that Messrs. Evans and Sons are *not* open to supply the public with single sticks or pieces of wood.

#### Tractors v. Propellers.

Mr. R. Steele, writing *re* the above, says: "With respect to your interesting article on the above in a recent issue of *FLIGHT*, and your correspondent's query as to why more power is required to drive a single tractor model than a *similar* model with propeller in the rear, I think the reason, or one of the reasons, must be due to the fact that the propeller (in the latter case) works in the following wake or 'dead air' region behind the machine. From my personal experience with models, I am of opinion that the propeller, other things being equal, is more efficient than the tractor, on models at any rate. I have had flights with single-propeller canard type models in still air, which, after allowance for distance covered in gliding and taking into account the number of revolutions and pitch of the propeller, would go to show an almost negligible slip. Your opinion on this point in the columns of *FLIGHT* would be much valued."

Messrs. Rolfe Bros. write:—"We notice in a recent issue an article to the effect that in models the propeller model is more efficient than the tractorplane. We, in our extensive experiments, always found the tractorplane to be by far the more efficient. With regard to our No. 2 tractorplane, the design of which is now 15 months old, this model weighs 2½ ozs., and is driven by ¼ oz. of rubber, an efficiency ratio of 9:1. This model rises from the ground in less than 18 ins. run, flies very high, and after about 25-30 secs. glides down. We do not think this model can be beaten on the score of efficiency by a flying stick or anything else."

The writer quite agrees with Mr. Steele, and not with Messrs. Rolfe Bros., whose views are not in his opinion in agreement with the leading aeromodellists. However, discussion is always good, and he would welcome the conclusions which such experts as Messrs.



### KITE AND MODEL AEROPLANE ASSOCIATION.

#### Official Notices.

##### British Model Records.

Hand-launched ...	{ Distance ...	A. E. Woollard ...	477 yards.
	{ Duration ...	A. F. Houlberg ...	89 secs.
Off ground ...	{ Distance ...	G. Rowlands ...	232 yards.
	{ Duration ...	A. F. Houlberg ...	51 secs.
Hydro, off water ...	{ Duration ...	F. Whitworth ...	37 secs.
Single-tractor screw, hand-launched ...	{ Distance ...	F. G. Hindsley ...	173 yards.
	{ Duration ...	J. E. Louch ...	44 secs.
Do., off ground ...	{ Duration ...	J. E. Louch ...	40 secs.

Competitions.—The first competition will be held on Saturday, May 24th, on Wimbledon Common, at 3 p.m., for prizes, presented by Messrs. Brooke and Westhorp. Competitors may submit any kite with an area of 30 ft. The measurement will be calculated by measuring the extreme height by extreme width and other usual rules.

Whitsun Scratch Competition for R.O.G. Duration.—This competition was held on Wimbledon Common on Whit-Monday. A good field turned out, and considering the wind, fairly good flights were made. The results being A. F. Houlberg 1st, with 47 secs.; W. J. Williams, 2nd, 37 secs.; 3rd, G. Rowlands, 35 secs.

Application for Affiliation.—The Wimbledon and District Model Club have made application to be affiliated.

Programme of Competitions for Year.—Any reader can have a programme on application and enclosing stamp for postage. They will be ready after 21st, but intending competitors in the kite contest on the 24th can obtain copy of that competition in advance.

Official Trials.—The next officially observed flights will be held on Wimbledon Common, on Saturday, May 31, on the Plain, Wimbledon side of windmill. All applications should reach the hon. sec. by 24th.

27, Victory Road, Wimbledon, S.W. W. H. AKEHURST, Hon. Sec.

### UNAFFILIATED MODEL CLUB DIARY AND REPORTS.

CLUB reports of chief work done will be published monthly for the future. Secretaries' reports, to be included, must reach the Editor on the last Monday in each month.

#### Aero-Models Assoc. (N. Branch) (15, HIGHGATE AVENUE, N.).

TO-DAY, Saturday, ordinary flying practice will take place at Finchley. Tuesday, 20th inst., general meeting at above address at 7.15 p.m. All members are particularly asked to do their best to be present, as there will be important business to discuss besides the election of new officers and others for the forthcoming club year.

#### S. Eastern Model Ae.C. (1, RAILWAY APPROACH, BROCKLEY).

FLYING next week-end at Woolwich Common, Blackheath, Mitcham and Grove Park. Special attendance is requested at Blackheath on May 18, at 10.45 a.m., for the purpose of having photographs taken of the club's members and models.

G. P. Bragg-Smith, C. Ian Burrell, G. Rowlands, A. F. Houlberg, H. H. Groves, F. G. Hindsley, J. E. Louch, J. H. Dollittle, J. W. Burghope, and others have to say on the question.

*The most efficient machine is that which transports the greatest load in the shortest time over the greatest distance* (C. Ian Burrell). N.B.—Opinions are not asked for, but the results obtained from actual experiments, or conclusions founded on, as far as we at present know, correct theoretical considerations.

#### The Official Results of the Brake Tests.

The results of the bench tests of the model aero motors published in last week's issue are of very great interest, and well worth careful study, and Professor Morris's article will be awaited with especial interest.

A somewhat curious anomaly is the fact that although both the motors have failed to fulfil the conditions laid down, both have been successful in actually flying machines, which is, after all, the real test.

The writer, in conjunction with Mr. G. Rowlands, was always opposed to the conditions laid down, which they considered too severe. Professor Langley's plant, it is true, works out at about 7 lbs. per h.p., but then this assumes that the actual h.p. was as stated, viz., 1 to 1½ h.p., which, in view of these recent tests, appears very doubtful—because the h.p. actually developed by the Bonn Mayer and Stanger plants is considerably less, I believe, than was commonly supposed. But the same thing can, no doubt, be said to apply to other model aero motors as well. The steam plant made for the writer by Mr. H. H. Groves has been variously estimated at from ½ to ¾ h.p. This I always thought excessive, and the recent trials certainly, I think, tend to show that this view is correct, and that the real h.p. is more nearly ¼ to ½ h.p.

Under the circumstances we are very pleased to hear that the Royal Aero Club is again offering the prize for another competition—in which we have every reason to suppose several more competitors would now enter. It is just this kind of knowledge that is so much wanted.

Incidentally the reader should not fail to note that competitions serve to show that models are more efficient (since less power is required to fly them) than was heretofore supposed.



#### Good Cross-Country Work in Germany.

LEAVING the Johannisthal aerodrome on Tuesday morning at 3.30, De Waal and Kuntner landed at 6.10 on the Vahrenwald Heath in Hanover. After a stop of about 4 hours, they re-started with the object of flying to Utrecht.

#### Flying Over the Bernese Alps.

BIDER, who sprang into fame by his fine flight over the Pyrenees last January, made another splendid performance on Tuesday. Starting up from Berne at 4.35 on his Blériot monoplane, he rose rapidly to a height of well over 3,000 metres, and, flying across the Alps, eventually landed at Sion in the Valais at 6.19 a.m., the distance, which included about 80 kiloms. of glaciers, having been covered in 2 hrs. 19 mins. He passed over the Simmenthal and the Wildstrubel district and above the Montana plateau. Bider stated that he found the intense cold very trying. The greatest altitude reached was about 3,200 metres.

#### A Russian Height Record.

ON Saturday last, at Moscow, the Russian aviator, Gaber-Vlinsky, made a new Russian height record, taking his Nieuport monoplane up to 2,800 metres. On the 6th inst., he and Naougnnikoff on a Farman, went from Moscow to Seppoukhoff, landing on the way at Podolsk and giving exhibition flights.

#### An American Officer Killed.

ON Friday, last week, Lieut. J. D. Park, attached to the U.S. Army Aviation Camp at San Diego, Cal., started on a long-distance flight to Los Angeles, and landed at Olive to send a telephone message back to his commander. In starting again his machine collided with a tree which, on account of the prevailing mist, the pilot failed to observe in time to keep clear. In the smash, Lieut. Park was instantly killed.

#### Long Cross-Country Flight in Texas.

ON April 14th, Lieuts. Milling and Sherman, who, on March 28th made an American duration record of 4 hours 22 mins., after flying from Texas to San Antonio, flew back to Texas, but the return journey, on account of the adverse wind, took 3 hours 50 mins., half an hour longer than the outward trip.

#### A Balloon Race at the Anglo-German Exhibition.

MESSRS. SPENCER BROTHERS have arranged for a race between three balloons on the occasion of the opening of the Anglo-German Exhibition at the Crystal Palace on June 11th.



